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UNIVERSITY OF LONDON

UNIVERSITY COLLEGE ANNUAL REPORT 1969–1970

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ANNUAL REPORT
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OFFICERS OF THE COLLEGE

CHAIRMAN OF THE COLLEGE COMMITTEE

THE RIGHT HON. LORD STRANG

G.C.B., G.C.M.G., M.B.E., B.A., LL.D.

VICE-CHAIRMAN OF THE COLLEGE COMMITTEE AND TREASURER

SIR BERNARD WALEY-COHEN, BT, LL.D., M.A.

PROVOST

THE RIGHT HON. LORD ANNAN

O.B.E., M.A., D.LITT., D.U.

VICE-PROVOST

PROFESSOR SIR HARRIE MASSEY

D.SC., PH.D., LL.D., F.R.S.

SECRETARY

A. TATTERSALL, M.A.

REPORT OF THE CHAIRMAN OF THE COLLEGE COMMITTEE AND THE PROVOST

The Golden Age

One of the perennial themes in literature is the existence of a Golden Age. In the legends of the universities it may well be that the fifties and sixties of this century will feature in time to come as a Golden Age before the financial ice-age of the last third of this century settled upon them.

Such, at any rate, is the impression we are left with to-day. Very great changes took place in universities during the past twenty years, but although some of them may have been feared, they were nearly all changes which improved the lot of both staff and students, until British universities in a sense were the most favoured institutions in higher education anywhere in the world; they had uniquely favourable staff/student ratios; controlled entry requirements; students in receipt of grants, able to apply to the university of their choice, with more of them each year housed in different kinds of university residences, and with improving Union facilities. They had staff with adequate time and facilities for research, relatively well paid in relation to other countries and other professions in this country, and with early tenure to the retiring age. They justified these felicities by running the shortest first degree course in the world with an exceptionally low failure rate. To-day many of these great benefits are in question.

University College and the Nation's Finances

There never has been a time, even in the Golden Age, when universities did not ask for more money than they were given. But something quite unlike the past has happened in this quinquennium. It started with the University Grants Committee asking us specifically to spend extra on certain 'indicated' areas—Town Planning, the Library, Physics, Engineering, and the Biological Sciences. We honoured—partially, at any rate—our obligation to the first two. The others instead of receiving additional support have suffered cuts.

The universities have inevitably caught the national disease of inflation. Technicians' wages have exploded, other wages have risen substantially, and only the increases in academic staff salaries (which

have risen by a far smaller proportion than those in other professions, such as the Civil Service or Medicine) were met by an immediate earmarked grant. The operation of the Tress/Brown Index is meant to protect the universities' block quinquennial grant from the effects of inflation. Under this provision, supplementary grants are paid to universities to preserve the value of the original quinquennial grant. But these grants are always paid in arrear and as a result they never fully reflect increased costs. A single example of what has happened in this session will illustrate the problem. After a long and thorough investigation by the Department of Employment and Productivity, university technical staffs were awarded a salary increase of 21 per cent, backdated twelve months. No one contested the justice of the award. It was decreed by the Government, however, that the back-pay element in this award must be met by the universities themselves from their quinquennial grant, and that supplementary funds would be provided to cover only the prospective costs. For this College, this meant in effect a loss of very nearly £100,000 from the value of its block grant. It has been estimated that for the current quinquennium the real resources of universities in the United Kingdom have already been lessened by over £20 million as a result of inflation and the insufficiency of supplementary grants. For University College alone this reduction amounts to some £600,000. No wonder it is difficult to maintain standards or to undertake many urgently needed developments.

Devaluation also made its impact, not least upon the Library, and has gnawed away resources whose extent was determined three or four years ago. The growing cost of scientific equipment, and its more rapid obsolescence, also set problems, with which the new equipment grant formula does not cope. The rise in student numbers, and our determination not to see our teaching standards fall, generates pressures for additional staff appointments which we cannot satisfy.

U G C Visitation

Sombre facts overlaid the UGC Visitation which took place in February 1970. The Visitation took a different form this time. At the UGC's request the occasion was much more informal with more time for discussion and, to our great relief, far less documentation. All who participated from the College side were impressed with the realism shown by our visitors and by the acuteness of their questions and approach. It is fair to say that we got little of comfort from the occasion, apart from a realisation that the UGC appreciated

the quality and reputation of the College in research and the good staff/student relations that exist here. We were left with the distinct impression that in the future managerial criteria, economy of operation, and allocation of resources by formulae are going to be the order of the day. The UGC reaffirmed their view that expansion outside Central London was cheaper than expansion here and that we should have to be content with the present site and show what we could do within it. There was unlikely to be any significant increase in postgraduate studies (though research remained the essential distinguishing feature of universities), and places such as University College, in the interests of fair shares, might have to cede some postgraduate training to the new universities. One crumb of comfort was the acceptance by the UGC of the idea that it was legitimate to spend a small amount of recurrent money from time to time on equipment.

During the discussions that preceded the Visitation, it became clear that if the College is to participate in the expansion envisaged for higher education in the next decade (and the alternative to participation is not merely stagnation, but decline), then, our only hope lies in two courses of action:

(*a*) to create more usable space within the Rectangle by adapting and modernising our buildings;

(*b*) to accept more students at a sufficiently low marginal cost to be attractive to the UGC.

These two assumptions underlie the quinquennial policy statement which we have been drafting during the session. We have made no proposals for new academic developments unless they would bring about an increase in student numbers. To have done so would have been Utopian.

In order to work out a programme for adapting our buildings, a Unit has been set up under John Musgrove, Reader in Architecture. This Environmental Research Group, supported by grants from the Department of Education and Science and elsewhere, is now studying the use of space in this and other university institutions. We are also examining the introduction of central time-tabling. Already certain space, notably in the form of antiquated lecture theatres, has been identified as being capable of adaptation. Work should start soon on the first of these schemes, with the aid of a capital grant from the University's building allocation. It is also clear that we must have the means to 'decant' groups occupying space when the use of that space is being modified. We are, therefore, planning a building on stilts over the north-east quadrangle. This is the way we want to create elbow room.

Our second hope, namely, to increase student numbers, was met by departments being asked to state the number of additional students they would be prepared to accept at low marginal cost. This request produced a total of about 800 (in the proportion of 4 : 1 of undergraduates to postgraduates) at an average cost of not more than half the present departmental cost per student. This could be a very significant offer, which we hope will interest the UGC, and it has been made the keystone of the statement which we submitted to the University in connection with the attempt to bring together the proposals of the ten multi-faculty schools into a single forceful statement.

Finally, the Visitation brought to the surface another disturbing matter. For years University College has attracted munificent grants from Research Councils, Foundations, industry, and other sources, to finance research projects which have either been put forward by a department and accepted by the benefactor or commanded direct. This session, these grants have totalled about £1¼ million. We attract such grants because we are a centre of excellence. Admittedly, these grants, which bring many benefits to both teaching and research and to our scientific equipment, place an extra strain on the College resources. The Chairman of the UGC was not slow to point this out when members of staff complained to him about congestion and deteriorating conditions in the College. Yet it is against nature for university staff to look a gift horse in the mouth.

But the Chairman went on to warn the College against the risk of taking on too much contract research. He pointed out that contracts inevitably bring with them further expenditure which is not covered by the grant and falls on the general College budget. He warned us against becoming the victims of our own success and excellence.

What is worse is that it is becoming difficult to meet the comparatively modest stipulation which our benefactors sometimes make. The Science Research Council recently said that it intends to be even more selective in its choice of recipients for grants than it has been in the past. This suits us well. The Council then went on to say that it would expect any university which was willing to receive a grant to be prepared to show its enthusiasm for the project by contributing its mite as well. This is a body-blow. We no longer have any floating funds for subsidising outside research in our recurrent grant. What is more, there are no College funds available to meet the capital costs of adaptations to buildings or laboratories so that new groups can operate there. The University building allocation, on which we

depend for our grant-aided building projects, is inadequate by any standards. If we are to take more students, we shall need additional resources to provide more space for them in our existing buildings and to improve our amenities and for schemes of rationalisation. But we fear that we shall be constrained by the fact that the only money likely to be available in the near future will be earmarked by the UGC for student expansion.

The dual support system, under which the UGC provides the main underpinning for university research, and the Research Councils provide the specific support for selected projects, is well understood; but it is beginning to be doubtful whether the UGC underpinning is any longer sufficient, in view of the growth in cost of some research. We appreciate the help we get through access to, e.g., the Rutherford Laboratory, which the Science Research Council supports; but we are discouraged when certain Ministries try to refuse an overhead costs element in a research contract on the grounds that the Science Research Council disallows such costs. Some clarification on policy seems called for, as well as a re-assessment of the provision needed for the UGC's underpinning—always supposing that it is desired to maintain the high level of research done in the universities in expensive subjects.

The Central Problem

The central problem facing University College at present is that too great a proportion of our resources is devoted to staff, and too little to supporting costs. We are over-established—not in relation to student numbers, for our staff/student ratio has worsened—but in relation to our total resources. Perhaps it is not surprising that we have not yet made much progress in cutting down on establishment and switching funds from one item of expenditure to another in our budget. The most pressing need is to increase departmental grants because departments are rapidly going into deficit. We can do this only by cutting down staff establishments. Yet, at the same time, it is vital that justice must be seen to be done between the different areas of activity in the College, and that the departments in the Humanities, which are cheap to run and need staff rather than supplies and equipment, should not be penalised because of the needs of 'big science'.

We have made a dent in the problem but we are nowhere near solving it because we are not yet organised to do so. The existing committee structure which is there to advise the Professorial Board needs to be overhauled so that better and more exact advice on

priorities and alternatives can be put to the Board, which, as it now numbers 185, finds it more difficult to be an executive body.

Meanwhile, the College has been involved in a University administrative exercise for which the Court produced special funds. How should computer techniques be applied to administrative functions? This year has seen the introduction of computerised payroll and accounting procedures. These have been developed at University College under the direction of a working party representative of the University and a number of its Schools, and the O. & M. and Data Processing Department of the University carries out the detailed processing of the programme. Problems during the period of transition have put a considerable strain on the administration, but the difficulties have been overcome, and the College in collaboration with the University and other Schools looks forward to the development during the next few years of an advanced management control system.

Finance

The income of University College for 1969–70 amounted to £7,119,533, an increase of £957,985 over 1968–69.

Expenditure in 1969–70 was £7,157,168, inclusive of the cost of research borne by outside grants, which totalled £1,282,623 compared with £1,023,231 in 1968–69. The number of these grants reached 423, an increase of 40.

Capital grants announced for the year amounted to £317,753, compared with £333,140 for the previous year. Receipts against these and previous capital grants and capital expenditure amounted to £348,228, compared with £810,623 in 1968–69.

Part of the working surplus achieved in 1967–69 was used to make good some of the shortfalls mentioned above (notably on departmental grants and on scientific equipment) and some of it is to be expended in ways which will reduce future calls on recurrent funds. This is a situation which may not recur.

Rationalisation

This is a term which has come into vogue recently, following Sir John Wolfenden's farewell Allocution to the University in 1968. His theme was that effort was dispersed and resources frittered away because too many colleges were active in a small way in 'small' or rare subjects. In theory there is much to be said for creating larger units which ought to be more cost-effective than a lot of smaller ones. Unfortunately, in practice things are rather different. First, the

Colleges of London University have developed each in its own way in response to internal and external needs and pressures. Second, it is not always good policy to disturb the complex set of relationships within a college which affect both teaching and research. There is already a great deal of willing co-operation which has grown up between departments in different colleges, e.g., the long-standing pooling of teaching resources in Italian between Bedford College and ourselves, and the newer but similar trend to this in Geology between the same Colleges. One of the main difficulties is that newly-married couples require a house to live in, and most rationalisation schemes founder on the inability of one or other college to provide the extra space for a combined department. The price of rationalisation all too often seems to be an *increase* in costs in the short run in the hope of achieving savings in the long run. Furthermore, marriages if they are to succeed need to be marriages of true minds, and there can be personal difficulties in matters such as these. So a happy issue out of our afflictions is unlikely to come quickly from this source. This is not to say that *something* cannot and should not be done. The outcome of two rationalisation committees set up by the University, on Classics and Geology, is awaited here with interest, and this College will try to assess the possibilities realistically.

Staff and Establishment

For the academic staff the 9 per cent award from 1 October 1969 was a welcome and overdue relief, since academic salaries have fallen behind the effects of inflation. A further relief was that on this occasion the Prices and Incomes Board confined itself to its brief and did not venture any further *obiter dicta* on the merits and demerits of university teaching.

During the year we had to work out the practical application of the Prices and Incomes Board's earlier recommendation for 'discretionary allowances'. After protracted consultation and consideration, we settled for an increase in existing tutorial allowances (which were inadequate) and the award of one increment to those below the rank of Professor who were recommended as carrying responsibility for a particular and identifiable task in the organisation of teaching, whether undergraduate or postgraduate. In most cases this meant the person who organised and ran a particular course, e.g., an M.Sc. or part of a final degree course. The allowances will pass on when the duties pass on. Most of us would feel that in this way we have made the best of a bad job; the allowances reward people who are seen to be carrying a particular responsibility, and to this extent

we can be grateful to the Prices and Incomes Board, and hope that this financial provision will be continued long after its first report is buried and forgotten.

The Prices and Incomes Board's second report contained one other moderately satisfactory feature: its admission that there was after all a case for a London Allowance, and its increase to £100 for Readers and below. The figure of £100 per annum is still derisory in relation to travelling and living costs in the London area; but at least it is now recognised that these extra costs are the same for everyone. It now remains to campaign for a fair rate for all.

The final legacy of the first Prices and Incomes Board report is the impetus towards providing some form of training for newly-recruited teachers. A number from this College attended the course which the Institute of Education put on in September 1970, and a few will be attending courses elsewhere. We shall watch the outcome of these courses with interest. It would not be justifiable to commit a whole year of an intending university teacher's life to a training course, but some concentrated guidance at the outset of his career, if tailored to the needs of his subject, ought to be beneficial.

On the technical side, after regular salary increases in recent years which arguably coped with inflation, a more radical step was taken. The national committee which deals with technical salaries, in conjunction with the Unions concerned, undertook, with help from the Department of Employment and Productivity's Manpower Survey, a radical revaluation of the Common Grading Scheme. This took the form of a job evaluation exercise, done on a substantial sample of universities, followed by a comparison with salaries in similarly evaluated posts in cognate technical services in the public and private sector. The comparison was found to justify a 21 per cent increase, backdated to 1 April 1969, in Common Grading Scheme salaries. It is to be followed by a restructuring of the Scheme itself, to ensure a closer relation between salary and responsibility.

The results of the survey surprised us only a little. The outcome of the episode (the refusal of the Government to finance the backdating) surprised us a great deal, since the majority of the comparisons were with the public sector. The effect on our finances has been noted above; we already have financial problems that are difficult enough to solve, without having to meet from the College's basic block grant salary arrears that arise from this kind of survey.

A claim by the Unions for a further 15 per cent, based partly upon the cost of living and partly on subsequent wage-movements in comparable areas, is now under negotiation, which may be difficult

and protracted. This all underlines the need for a consistent wages policy—a thing which the last Government tried and failed to produce, and which the new Government seems unwilling to undertake. The outlook for university finance, in these circumstances, is grim.

Clerical and secretarial staff—the area of greatest difficulty, both in recruitment and retention—had to be content with more modest rises—5·6 per cent in October 1969, followed by 10 per cent in August 1970. We know that we are bound to be uncompetitive with commerce in terms of wages, though we think we offer pleasanter conditions. But staff shortages mean that our staff work on the whole a great deal harder than their colleagues in commerce, and even in Government service, for a considerably lower reward. Morale suffers, and constant staff changes lead to lowered efficiency.

The last factor in the staff area to be noted is the current trend towards unionisation of all grades of university staff. The Vice-Chancellors' Committee has reached an agreement with the TUC on the appropriateness of Union representation at all levels; and grades of staff which so far have shown no interest whatever in such representation are now being approached by Union recruiting officers. This is probably an inevitable development; and there is no reason why university staffs should be deprived of any real benefits which Union representation can bring. However, one cannot discount the possible effects of Union militancy upon our finances, when the recoupment of the cost depends, as it does, on the speed and completeness of governmental response to the evidence of the Tress/Brown Index of Costs.

Student Numbers

The total student population was again a record at 5,365, an increase of 65 over the session 1968–69, with the number of full-time students up from 4,305 to 4,429, and part-time students down from 995 to 936. The number of undergraduate students rose by 3·8 per cent to 3,605, but postgraduates fell by 3·6 per cent to 1,760. Overseas students numbered 892, compared with 875 in 1968–69.

The UGC, for the purpose of their own statistics, require the College to calculate the total load of teaching and research which falls upon each department, in terms of full-time equivalent students, taking into account service teaching, intercollegiate teaching, and other commitments. The total student load for the College in the session 1969–70, calculated on this basis, was 4,965.

Full-time students living in halls of residence or other accommodation provided by the College or the University reached a new peak of

1,362 (30·8 per cent), compared with 1,249 in 1968–69. 1,899 were in lodgings, 1,086 lived at home, and the remainder were studying at foreign universities as part of their course.

Building Programme

The new Chemistry Building has been named the Christopher Ingold Laboratories, commemorating one of the most distinguished chemists to have served the College in the long and distinguished history of that Department. Internally, the building is handsome and well laid out, and apart from a few teething troubles in its services, has functioned well. Externally the degree of charm which it exerts is very much in the eye of the beholder. At any rate, the Camden Society of Architects thought so highly of it as to give it an award as one of the best buildings erected recently in the Borough. It was officially opened by Lady Ingold on 28 September 1970.

The construction of the second stage of the development of the Whitcher Place site in Camden Town was completed in May 1970, some two months ahead of the completion date in the building contract. Named Max Rayne House, it provides accommodation for 287 men and women students, who will cater for themselves, and will be opened in October 1970. The building costs were met from a generous donation from the Max Rayne Foundation.

The erection of the extension to Ramsay Hall on the Whitfield Street frontage, financed by the third of the Anonymous Donor's generous benefactions to the College, is well advanced and will be completed in the summer of 1971. It will accommodate 195 men students, who will use the dining room of Ramsay Hall.

Thus, thanks to the generosity of private donors, nearly 500 rooms will have been added to our stock of student accommodation in two years.

The building of the new Student Health Centre, financed by a donation from the Wolfson Trust, should start in December 1970 and be completed in 1972.

Alterations made in the New Refectory in 1969 to improve the service arrangements in the Main Hall succeeded in reducing the queues in that area, and similar arrangements have been made in the Upper Hall in time for the opening of the session 1970–71.

The Court of the University has been able to make available from its building allocation a sum of £250,000 in the period ending 31 March 1972 towards the cost of rationalising accommodation within the College. It is proposed that out of this money certain lecture theatres and laboratories in the old Chemistry Building will be

converted to other purposes, the Weldon Theatre will be converted to staff rooms, and a building will be erected above the car park in the north-east quadrangle.

One matter for concern is the fact that the University had not, by the end of the academic year, been able to inform us of any Minor Works Allocation for the year ending 31 March 1971. This is an allocation under which the University has in the past been able to delegate to us a portion of its building funds to facilitate those minor jobs of alteration, adaptation, and improvement which are so vital to a place like this. Demands for this type of work rise all the time, and the waiting-list lengthens yearly. Many of the jobs, if put through urgently, can make a world of difference to a department, and it is a most serious matter if they cannot be done.

Student Matters

During a year in which there were explosions in other universities, we have had another relatively quiet time. During part of the year the Union leadership appeared uncertain of its direction, and a little group of militants took advantage of this on two occasions. The College has no investments in South Africa, so after the Provost had spent one lunch-hour answering questions on this and many other topics, this group, searching for an issue, demanded the instant resignation from the College Committee of those lay-members who were directors of companies with subsidiaries in South Africa. Some twenty to thirty students made a demonstration during a meeting of the College Committee. The College Committee was incommoded but unmoved. The second manifestation followed the fuss about files at the University of Warwick. Ignoring the assurances which had been given that no political files are kept here, the dissident group managed to get a majority at a Union General Meeting, called at short notice, for a motion demanding that all the files, here and at Senate House, be open to inspection by all the students all the time. About thirty students then staged a sit-in in the Council Room. Within forty-eight hours the numbers dwindled to nothing. The Union then achieved a General Meeting, of the unheard-of size of at least 700, which roundly condemned the demonstrators.

Effective and responsible leadership in the Union reappeared once more, and we took comfort from the slogan 'Repressive Tolerance Out' scribbled on one of the College walls.

In the meantime, consultation with the student body, at the grass roots through departmental committees, and through the main Staff/Student Committee and on a large number of other committees

(to which the Planning and Buildings Committee has this year been added), has gone on undisturbed.

Academic Matters

The session 1969–70 saw the introduction of the first courses in the Faculty of Arts under the course-unit scheme, these being in Classics and Geography. On the postgraduate side, teaching began for the M.A. Degree course in Architecture, the new University Diploma in Shipping Law, and the College Diploma in Statistics. The first students were registered in this College for the M.Sc. course in Ergonomics, which had been instituted by the University in the previous session. The Department of French secured University approval of new regulations for the B.A. Degree course in French, for students of this College, which will begin in 1970.

We have been active, with the Royal Free Hospital School of Medicine and with University College Hospital Medical School, our decreed partners, in pursuing the proposals of the Todd Report as they affect us. In effect, they mean the incorporation of the pre-clinical and clinical departments of the RFHSM and the clinical departments of UCHMS with our own pre-clinical departments to form a very large Medical Faculty in our midst. It could well number 1,200 or more students. Our united view on this is that it entails the erection of additional accommodation in or very near Gower Street, and substantial adaptation of existing accommodation on both sides of the street. We sympathise deeply with the RFHSM, which has seen its well-developed plans for a new pre-clinical school at Hampstead, alongside the new hospital there, thwarted at the last moment because of the Todd proposals. In spite of this disappointment the RFHSM has co-operated in the most loyal and helpful way in all these discussions; and, of course, our relations with UCHMS have continued to be of the friendliest. It must be admitted that Lord Todd could not have selected pleasanter bedfellows for us. The stage reached now is that the UGC has indicated that ours is one of the three schemes in London which it is prepared to see go forward, but has not yet been able to react on the site problem or to say when money might be available to set the scheme in motion. In the meantime, we plan, and are taking the first step in revising the medical curriculum, in consultation with our partners.

The new Faculty of Environmental Studies was established at the beginning of the session, and on 1 January 1970 the Bartlett School of Architecture and the Department of Town Planning combined to form the nucleus of a School of Environmental Studies. In order

to maintain the association of the name of Sir Herbert Bartlett, under whose benefaction the School of Architecture had been erected, with architectural activities in the College, the Chair of Architecture has been entitled the 'Bartlett Chair of Architecture' and the building in the north-west corner of the main quadrangle, occupied by part of the School of Environmental Studies, has been named the 'Bartlett Building'.

In celebration of the eightieth birthday of Emeritus Professor Sir John Neale on 7 December 1970, the College has instituted, under a benefaction from Jonathan Cape Limited, publishers to Sir John for about thirty-five years, an annual public lecture in English History, to be known as 'The Neale Lecture in English History'. The first lecture is to be given by Dame Veronica Wedgwood, O.M., on 7 December 1970. The inauguration of this Lecture, which honours in his lifetime one of our most distinguished scholars, has given immense pleasure throughout the College.

Under the Will of the late Emeritus Professor H. Hale Bellot, whose death was reported last year, the College has received a large collection of pictures, including a number of valuable engravings and a delightful pencil drawing of Bellot himself by his friend, Ivon Hitchens, and a gift of money amounting to nearly £10,000. This sum is to be invested and one half of the income used for the benefit of the American History library and one half to assist graduate students and younger members of the staff of the History Department to pursue research in the United States or any other part of the western hemisphere. The American History library has been renamed the 'Bellot Library of American History'. We are happy that so loyal and distinguished a member of the College, whose Vice-Chancellorship was a fitting culmination of his career and interest in the University, should be thus commemorated; and we are grateful for this last generous act on Professor Bellot's part.

A list of publications by members of the College departments will be found on pages 37–89. This is an impressive record and no attempt is made here to summarise the research projects on which the departments have been engaged during the session, many of which have attracted substantial grants from Research Councils and other grant-giving bodies.

The twelfth reception to be arranged for former students of the College was held on 8 May 1970, at the invitation of the Provost and the President of the Association of Friends of the College. About 150 undergraduate and postgraduate students who entered the College during the period 1936–46 were present, and were most appreciative

of the opportunity afforded them of strengthening or renewing their association with the College and of meeting again their teachers and student contemporaries.

Seventy Heads from a variety of Schools attended the College's fourth conference of Head Teachers held in April 1970. These conferences are proving most helpful on both sides, giving Heads a better idea of what the College offers and also improving personal links between the Schools and the Heads and Tutors of College Departments.

The 1970 Foundation Oration was delivered by David Steel, M.P., in the Collegiate Theatre on 16 March. The subject of his oration was 'Racism and the Seventies'.

Association of Friends of University College London

The Friends of University College have continued their valuable assistance to the College. In 1970 they have undertaken to provide grants for the following projects, amounting in total to £1,825: clocks for the auditorium of the Collegiate Theatre (£75); the planting of trees and shrubs and the provision of a tennis court on the Whitcher Place site, which accommodates Ifor Evans Hall and Max Rayne House (£1,500); reception for former students held on 8 May 1970 (£200); maintenance of Film Society's film record of College affairs (£50).

Only by increasing its membership and subscriptions can the Association of Friends hope to continue to play the part which it has filled in recent years in providing much needed amenities to enhance the corporate life of the College. The gifts which the Friends make to us supplement, in a necessary and imaginative way, the provision for our more utilitarian needs which comes from public sources.

The University of London

An interesting development towards the end of the year was the institution of a Committee on the Governance of the University of London, under the chairmanship of Lord Murray of Newhaven. We were pleased to receive an invitation to submit our views, though less pleased when we noticed that the invitation, dated late June, only gave individuals till the end of September and institutions till the end of October to reply. This is a matter of the greatest importance to everyone in the University, and such precipitate haste implies either that the operation is conceived as being of limited scope and significance, or (if not that) that its findings will be based on inadequately prepared evidence. We got an extension till December,

but even that will not be an easy deadline for so complex an enquiry.

'*The Seventies*'

Earlier in the year universities were asked to express their views on the 'Thirteen Points' propounded by the Minister of State for Higher Education as a means of raising the university intake at low cost, and on the general question of the expansion of higher education in the next decade. On the thirteen points we had little of comfort to say, and our views were much in line with those of the universities as a whole, as assembled by the Vice-Chancellors' Committee. On the general question of expansion, as indicated above, we are not over-anxious to expand, except in certain science subjects (where, however, a question-mark hangs over the availability of good candidates in sufficient numbers), but are prepared to do so over most of the field in a substantial way if the UGC can be persuaded to give us a modest increase in resources. This, of course, is the question-mark which hangs over the whole discussion of the increase in student numbers in the next quinquennium. Will there be funds available to continue to give the increased number of students what the universities believe a university education should be?

STRANG, *Chairman*
ANNAN, *Provost*

SUPPLEMENT

HONOURS AND DISTINCTIONS

In the New Year Honours in 1970 Dr Walter Adams, Director of the London School of Economics and Political Science and Fellow of the College, and Professor A. J. Ayer, Wykeham Professor of Logic in the University of Oxford and formerly Grote Professor of Philosophy of Mind and Logic at the College, were created Knights Bachelor. The C.B. was conferred on R. A. Furtado, Presiding Special Commissioner, Board of Inland Revenue, and on Dr J. W. James, Deputy Chief Medical Adviser, Department of Health and Social Security, former students in Laws and in Medical Sciences respectively; the C.M.G. on another former Medical student, Dr L. R. Chaperon, for political and public service in Mauritius; and the C.B.E. on Dr L. Rotherham, Fellow of the College and lately

Member for Research, Central Electricity Generating Board, and on the following former students: A. C. B. Chapman, Executive Chairman, Group Lotus Car Companies Ltd, for services to export, Dr F. Hartley, Dean of the School of Pharmacy, J. C. Nightingale, Chief Constable, Essex and Southend-on-Sea Joint Constabulary, and J. H. Smith, Permanent Secretary, Ministry of Finance, Benue-Plateau State, Northern Nigeria.

In the Queen's Birthday Honours Professor Sir Max Rosenheim, President of the Royal College of Physicians and Honorary Fellow of the College, was created a Life Peer. The C.B. was conferred on A. H. Chaplin, Principal Keeper of Printed Books at the British Museum and Fellow of the College, the C.M.G. on K. E. Mackenzie, a former Engineering student and lately Counsellor (Commercial), H.M. Embassy, Stockholm, and the C.B.E. on Dr C. L. Oakley, Brotherton Professor of Bacteriology in the University of Leeds and Fellow of the College. Two former students who also received the C.B.E. were J. A. Fryer, lately Director of Lands and Surveys, Sabah, and D. E. Rooke, Member for Production and Supply, the Gas Council.

In the 1970 General Election several former students were elected or re-elected as Members of Parliament. P. K. Archer (Philosophy) for Rowley Regis and Tipton, Mrs Freda Corbett (History) for Peckham, and A. W. Lyon (Laws) for York, were re-elected; and seats were won for the first time by R. A. Hicks (Geography) for Bodmin, B. T. John (Laws) for Pontypridd, and I. R. Stanbrook (Economics) for Orpington.

A number of interesting and important appointments were announced during the session. Appointments of members of the College included those of Professor Lord Holford as a Trustee of the British Museum, Professor W. Beckerman and Sir Solly Zuckerman as members of the Royal Commission on Environmental Pollution, Professor Lord Lloyd as Chairman of the National Film School and Professor Sir William Coldstream and Lord Goodman as Governors of the School, Sir Max Rayne as a member of the National Theatre Board, Professor Lord Rosenheim as a member of the Medicines Commission to advise the Government on the safety, efficacy, and quality of medicinal products for human and veterinary use, Professor Randolph Quirk as Chairman, appointed by the Secretary of State for Education and Science and the Secretary of State for the Social Services, of a committee of inquiry to look into the operation of the country's speech therapy services, Dr L. Rotherham as Chairman of the Department of Education and Science Advisory Committee

for Scientific and Technical Information, Professor Sir Harrie Massey and Professor Sir Ronald Nyholm as members of the Royal Society's Standing Committee on Education to study matters relating to science education, Professor N. Lichfield as a member of the South-east Economic Planning Council and of the Social Science Research Council, A. G. Watson as Honorary Secretary of the Royal Historical Society, Dr D. McNally as a Royal Society representative on the British National Committee for Astronomy, and D. J. Foskett as a member of the Army Education Advisory Board. A former member of the College staff, Dr A. H. Chilver, was appointed a member of the Science Research Council, and appointments of former students included Sir Arthur Snelling as British Ambassador to South Africa, Professor R. J. Fitzpatrick and Dr F. Hartley as members of the Medicines Commission, K. B. Gardner as Principal Keeper of Printed Books at the British Museum, Professor A. J. Cole as Chairman of the Inter-University Committee on Computing, and J. H. P. Draper as Principal Establishment and Organisation Officer of the Ministry of Transport in charge of the railways group of divisions.

Sir Charles Goodeve, Fellow of the College, Professor Sir Bernard Katz and Professor Sir Harrie Massey were all appointed Vice-Presidents of the Royal Society for 1970, and Professor R. Miledi was elected to a Fellowship of the Society, as was Professor J. Heslop-Harrison, formerly Reader in Taxonomy. Lord Goodman, Fellow of the College, was elected to a Fellowship of the Royal Society of Arts, the City and Guilds of London Institute conferred a Fellowship on Professor A. L. Cullen, and the Institute of Patentees and Inventors an Honorary Fellowship on Professor G. Porter, Visiting Professor in the Department of Chemistry. Professor F. G. Young, Fellow of the College, was appointed President of the British Nutrition Foundation. Sir Bernard Waley-Cohen, Honorary Fellow of the College, was elected a Senior Warden of the Worshipful Company of Clothmakers, and B. A. P. Winton-Lewis, a former Architecture student, Master of the Worshipful Company of Broderers.

Professor Lord Rosenheim was elected to an Honorary Fellowship of St John's College, Cambridge; three Fellows of the College were also elected to Honorary Fellowships, Sir Alan Parkes, at Christ's College, Cambridge, Sir Richard Turnbull, at Magdalene College, Cambridge, and Emeritus Professor Dame Kathleen Lonsdale, at Somerville College, Oxford; and a former student, Dr Frances A. Yates, was elected to an Honorary Fellowship of Lady Margaret

Hall, Oxford. Sir Reginald Goff, Fellow of the College, and Professor H. H. Scullard, a former student and member of staff in History, were both elected Fellows of King's College, London.

Sir Solly Zuckerman, Fellow of the College, was elected to Honorary Membership of the American Academy of Arts and Sciences, and Professor Lord Llewelyn-Davies an Honorary Fellow of the American Institute of Architects.

Honorary degrees were conferred on members of the College as follows: the D.Sc. of the University of Nottingham on Professor E. C. Amoroso, the D.Sc. of the University of Sussex on Professor Eleanor M. Burbidge, the D.Sc. of the University of Newcastle upon Tyne on Sir Charles Goodeve, the LL.D. of the University of Edinburgh on L. C. B. Gower, the D.Litt. of the University of Newcastle upon Tyne on Mr Osbert Lancaster, the D.Sc.(Eng.) of the University of London on Sir Arnold Lindley, the D.Litt. of the University of Wales on Professor W. N. Medlicott, the D.Litt of the University of Oxford on Professor A. D. Momigliano, the D.Sc. of the University of New South Wales on Professor Sir Ronald Nyholm, who was also awarded the *Sigillum Magnum* of the University of Bologna for services to science and co-operation in scientific matters between this country and Italy, the D.Sc. of the University of Edinburgh on Emeritus Professor L. S. Penrose, the D.Sc. of the University of East Anglia on Professor G. Porter, the D.Sc. of the University of Birmingham and of the University of Southampton on Professor Lord Rosenheim, the D.Sc. of the University of Aston in Birmingham on Sir Frederick Warner, the Docteur *honoris causa* de l'Université d'Aix-Marseille on Professor B. Woledge, and the LL.D. of the University of Birmingham on Sir Solly Zuckerman. The Council for National Academic Awards conferred the honorary degree of LL.D. on Lord Robbins. Honorary degrees were also conferred on the following former members of staff of the College: the D.Litt. of the University of Durham on Professor H. C. Darby and the Litt.D. of the University of Cambridge on Professor E. H. J. Gombrich; and on the following former students: the D.V.M. & S. of the University of Edinburgh on Professor A. T. Phillipson, and the D.Litt of the University of Oxford on Dr Frances A. Yates.

Emeritus Professor Daryll Forde was awarded the Wellcome Medal for 1970 of the Royal African Society, Sir Peter Medawar, formerly Jodrell Professor of Zoology and Comparative Anatomy, the Royal Society's Copley Medal for his work on immunology, Dr A. Baker, a former student and former member of staff in Mathematics, one of the Field's Medals at the International Congress of

Mathematicians, Nice, 1970, and Lt.-Col. F. J. Griffin, a former student of Librarianship, the International Medal of the Society of Chemical Industry.

APPOINTMENTS

Sir Bernard Waley-Cohen was elected Vice-Chairman of the College Committee during the course of the year, in succession to Mr F. J. Stephens, and the following became members of the Committee: Sir Desmond Bonham-Carter, Mr E. Falk, and Sir John Stevens.

Within the College, at the beginning of the session, Professor Sir Harrie Massey took up the appointment of Vice-Provost, in succession to Professor G. W. Keeton.

Professor Arthur Brown, formerly Professor of English at the College by conferment of title, was appointed to the Chair of Library Studies and the Directorship of the School of Library, Archive, and Information Studies, Professor Lord Lloyd, Quain Professor of Jurisprudence, became Head of the Department of Laws, Professor M. G. Smith came to the Chair of Anthropology and the Headship of the Department from the University of California, Los Angeles, Professor G. P. Wibberley took up his appointment to the Ernest Cook Chair of Countryside Planning, tenable jointly with Wye College, where he had been Professor of Rural Economy, and Professor D. R. Wilkie, formerly Professor of Experimental Physiology at the College by conferment of title, was appointed to the Jodrell Chair of Physiology and the Headship of the Department, in succession to Professor A. F. Huxley, who continued at the College as Royal Society Research Professor and University Professor of Physiology. On 1 January 1970, Professor Lord Llewelyn-Davies, who had been Professor of Architecture at the College, was appointed to the Chair of Urban Planning and the Headship of the new School of Environmental Studies, and N. F. Watson, Senior Lecturer in Architecture, was appointed to the Bartlett Chair of Architecture. Dr K. O. Kemp became Reader in Structural Engineering by conferment of title at the beginning of the session, and on 1 June 1970 he was appointed to the Chadwick Chair of Civil Engineering and the Headship of the Department of Civil and Municipal Engineering. Members of the non-professorial staff who became professors by conferment of title were Dr R. Banham (History of Architecture), Dr T. J. Chandler (Geography), Dr P. D. Cowan (Planning Studies), Dr G. V. Groves (Physics), Dr M. A. Millner (Law), and Dr J. W. Mullin (Chemical Engineering).

M. J. Stewart, formerly Economic Adviser to the Kenya Treasury,

was appointed to the established Readership in Political Economy, and the title of Reader was conferred on C. Abramsky (Jewish History), Dr R. M. Davies (Mechanical Engineering), Dr M. S. Deol (Genetics), Dr B. S. Massey (Mechanical Engineering), Dr D. B. Roodyn (Biochemistry), Dr D. Thomas (Geography). The Readership in Archaeology of the Anglo-Saxon Period, held by D. M. Wilson, was transferred from the Department of English Language and Literature to the Department of Scandinavian Studies.

The following Visiting Professors were appointed during the session, under the scheme introduced in 1967: Dr F. W. Anderson, formerly Chief Palaeontologist, Institute of Geological Sciences (Geology); D. Curry, a distinguished amateur geologist with a long record of research and of 'public service' to geology (Geology); Professor D. V. Donnison, Director of the Centre for Environmental Studies (Environmental Studies); G. H. Gellie, Reader in Classical Studies, University of Melbourne (Greek); J. D. Jones, Deputy Under-Secretary in the Ministry of Transport (Environmental Studies); Professor P. Mandel, Professor of Naval Architecture, Massachusetts Institute of Technology, attached to Office of Naval Research in London (Mechanical Engineering); Professor W. Meredith, Professor of Psychology, University of California, Berkeley (Psychology); Professor H. Noreng, Professor of Scandinavian Literature in the University of Bergen (Scandinavian Studies); Professor J. Steffensen, Professor of Medicine in the University of Iceland (Scandinavian Studies—Icelandic); Professor K. N. Stevens, Professor of Electronic Engineering, Massachusetts Institute of Technology (Phonetics); Dr J. A. Willis, Reader in Classics, University of Western Australia (Latin); G. P. Youngman, Past-President of the Institute of Landscape Architects (Environmental Studies).

Other College appointments included Dr A. Comfort as Director of Research in Gerontology, in the Department of Zoology and Comparative Anatomy, on the take-over by the College of the Medical Research Council Research Group on the Biology of Ageing, and Dr J. P. Barron as editor of *The Bulletin*, in succession to B. C. Brookes.

At the beginning of the session there were some changes in Faculty appointments: Professor E. H. Scamell became Dean and Professor B. Cheng Vice-Dean of the Faculty of Laws, Professor H. Billett and Professor K. J. Ives were appointed respectively Dean and Vice-Dean of the Faculty of Engineering, and Dr Pauline M. Meadow was appointed Sub-Dean of the Faculty of Medical Sciences. On the

establishment of the Faculty of Environmental Studies, Professor Lord Llewelyn-Davies was appointed Dean, Professor R. G. Hopkinson Vice-Dean, and N. F. Watson Sub-Dean, the latter being succeeded by R. J. Fisher during the session.

During the year announcement was made of the following appointments of members of the College to academic posts outside the College. Professor C. E. Dent, Fellow of the College, was appointed to the Chair of Human Metabolism and the Headship of the Department at University College Hospital Medical School, and, on the academic staff, Professor H. C. Allen was appointed Professor of American Studies in the University of East Anglia from 1 October 1971, Dr J. Diamond as Professor and Chairman of the Department of Neurosciences in the Faculty of Medicine of McMaster University, Dr R. M. W. Dixon to a Chair of Linguistics in the Australian National University, Professor L. D. Ettlinger as Professor of the History of Art in the University of California, Berkeley, Dr O. F. Hutter to the Regius Chair of Physiology in the University of Glasgow, and Dr D. Thomas to the Chair of Geography at St David's University College, Lampeter.

Appointments of the following former members of the academic staff and former students to academic posts outside the College were also announced: Dr A. S. Aldis as Director and Dean of Postgraduate Studies at the Welsh National School of Medicine, Professor G. Aquilecchia to the Chair of Italian at Bedford College, Dr J. V. Armitage to the Chair of Mathematical Education in the University of Nottingham, Professor M. W. Danby to a Chair of Architecture in the University of Newcastle upon Tyne, R. H. C. Davis to the Chair of Medieval History in the University of Birmingham, Professor L. R. B. Elton as Head of the Institute for Educational Technology and titular Professor of Physics in the University of Surrey, Professor S. N. Hampshire as Warden of Wadham College, Oxford, Professor Barbara G. Hardy to the Chair of English at Birkbeck College, Dr A. Jacobs as Professor of Haematology in the Welsh National School of Medicine, B. H. Rasmussen as Chairman of the Department of Romance Languages at Dalhousie University, Dr P. B. Salmon to a Chair of German in the University of Edinburgh, Dr T. F. Slater as Professor of Biochemistry at Brunel University, A. Spicer as Professor at the Language Centre in the University of Essex, and Dr N. D. Twiddy to a Chair of Physics at the University College of Wales, Aberystwyth. The University of London conferred the title of Professor of Italian on Dr C. Fahy, Birkbeck College, and the title of Professor of Chemical

Pathology on Dr F. V. Flynn, and of Professor of Biochemical Pathology on Dr K. R. Rees, both of University College Hospital Medical School. The University of Newcastle upon Tyne appointed Dr C. Ellenby to a personal Professorship of Zoology, and Dr B. E. Tomlinson to a personal honorary Professorship of Pathology, and the University of Leeds conferred the title of Professor of Mineral Metabolism on Dr B. E. C. Nordin. Dr R. E. Asher was appointed Reader in Linguistics in the University of Edinburgh, Dr Averil M. Cameron to the Readership in Ancient History at King's College, London, and the University of London conferred the title of Reader in Numerical Analysis on Dr M. J. M. Bernal, Institute of Computer Science, and the title of Reader in Haematology on Dr A. J. Grimes, St Thomas's Hospital Medical School. W. Dienemann was appointed Librarian of the University College of Wales, Aberystwyth.

RETIREMENTS

Professor F. Brailsford was appointed to the Chair of Electrical Engineering in January 1951. He is very well known for his fundamental research into energy losses in ferromagnetic materials, and he has published a number of extremely valuable and often-quoted papers on the subject. He began this work with the Metropolitan Vickers Company, where he worked for a number of years in the research department before joining the College. In addition to his research contributions he has made a special name for himself as a teacher, both in the College and more widely through his well known books on magnetism—books which have been extensively used in electrical engineering departments all over the world. As a lecturer and tutor he has given kindly and generous help to very many engineering students, and they have good cause to be grateful to him. The University has conferred on him the title of Emeritus Professor in Electrical Engineering. His colleagues in the Faculty of Engineering will miss his sound commonsense and his friendly presence in the common rooms.

Professor W. B. Emery succeeded to the Edwards Chair of Egyptology in November 1951. Already renowned for his archaeological discoveries, he renewed the College's great tradition of excavation in Egypt set by Sir Flinders Petrie. From 1952 to 1956 he completed work on what may be the tombs of the earliest Egyptian Pharaohs at North Saqqara. From 1957 to 1964 he directed the British archaeological effort for the UNESCO campaign to save the monuments of Nubia, making memorable discoveries at Buhen and Ibrim. Since 1964, he has directed the search for the tomb of Imhotep at Saqqara,

in the course of which he has made many sensational discoveries, and greatly enriched British collections, including the College's. At University College he took over a Department which had lost its premises in the bombing: during his tenure, its famous collections have been rehoused and rehabilitated, students and staff have participated in work in the field, research has been stimulated, and the numbers of staff and students in the Department have increased. Great as his public reputation is, it is because of his *bonhomie*, his love of good company, his modesty, and his resilient optimism in face of continual difficulties that he is best known and loved in the College. The University has conferred on him the title of Emeritus Professor, and fortunately, with his appointment as Senior Research Fellow, he will be continuing his association with the Department of Egyptology.

Professor Lord Holford had been Professor of Town Planning and Head of the Department at University College since October 1948. He retired at the end of 1969 with the title of Emeritus Professor. His academic and professional career is unique in range and achievement. It is impossible to list at reasonable length all his honours and distinctions. He had been President both of the Town Planning Institute and the Royal Institute of British Architects and was awarded the highest honours of both these institutions: the Gold Medal of the Town Planning Institute and the Royal Gold Medal for Architecture. He became a knight in 1953 and his life barony was conferred on him in 1965. Apart from his work in the University and as a professional man, he has devoted himself unsparingly to public activity in every field touching on architecture and planning. Immediately after the war he was one of a small band of men working with Lord Silkin who created the whole fabric of British planning as it exists today. His public activities are well known, but beyond this all who have had the advantage of knowing him are deeply in his debt. He is a man whose generosity, kindness, sympathy, and warmth have profoundly affected the lives of all his friends. There are very few working today as architects and planners who have not at some time in their lives owed a debt of gratitude to William Holford. His unsparing and unselfish concern to help others has been an inspiration to all of those who have ever had an opportunity to work with him.

Professor J. S. Wilkie retired from the Chair and Headship of the Department of History and Philosophy of Science. After graduating in zoology at University College in 1929 he became Demonstrator in the Department of Biology at Guy's Hospital Medical School, but

he returned to the College in 1943 as a Lecturer in the Psychology Department. He left London in 1949, and for several years was engaged in private study and research at Cambridge. In 1954 he rejoined the College as Lecturer in History and Philosophy of Science, the title of Reader was conferred on him in 1963, and he was Acting Head of the Department from 1964 to 1967, when he was appointed to the Chair. The University has now conferred on him the title of Emeritus Professor. He is best known for his inspiring lectures and scholarly publications on a remarkably wide range of topics in the history of biology, but he also has a keen interest in philosophical problems. Under him philosophy of science received increasing attention, and the Department became recognised as a centre where a serious effort was being made to integrate the history and the philosophy of science. Professor Wilkie has retired to Cambridge; his many friends at University College hope that he will frequently visit London.

Dr H. G. Poole retired from his Readership in Chemistry at the end of the session. He came to the Department of Chemistry from Australia in 1933, and after holding a lectureship at Southampton for a period in 1937–38 he returned to join the staff in 1938, and was appointed Reader in 1947. During the war, as the only physical chemist with the small staff that accompanied the Department to Aberystwyth, he organised the course in physical chemistry and gave most of the lectures. He had a major part in shaping the courses for the new B.Sc.(Special) Degree introduced immediately after the war. Dr Poole was for many years in charge of the physical chemistry laboratory, and his research work in various fields of spectroscopy has been notable for its great accuracy. He also planned the reorganisation of electricity services in the Department after the war, and laid down requirements for the construction of the light storey on the old Chemistry building in 1954. Harry Poole will long be remembered by his colleagues for his loyalty to the Department and for his interest in the social life of the College, both within and outside the Chemistry Department. They are glad that his association with the Department is to be maintained through his appointment as Honorary Research Fellow.

The Department of Mathematics lost two of its senior members by retirement. J. W. Archbold joined the staff of the Department as an Assistant Lecturer in 1931 and, apart from wartime service with the Meteorological Office and the RAFVR, he has been with the College continuously since then. He was appointed Lecturer in 1934 and Senior Lecturer in 1960, and since 1963 he has given valuable service

as departmental tutor. An excellent lecturer, he was for many years responsible for the teaching of algebra to Honours and Special degree students, a number of whom were inspired by him to take up research work in geometry and algebra.

Dr P. Du Val was appointed to the Readership in Geometry in the Department of Mathematics in 1954. He was a Fellow of Trinity College, Cambridge, from 1930 to 1934, and after a year at the Institute for Advanced Study, Princeton, he held successively appointments at Manchester, Istanbul, Georgia, and Bristol, before taking up his Readership at the College. He has made many important contributions in the field of algebraic geometry.

T. H. Walker retired after twenty years as a Lecturer in the Department of Mechanical Engineering. A quiet, gentle man, he was the departmental tutor for the last five years of his period in the College and he filled that office with great effect. His competence as an engineer ranged over an unusually wide field: he was a chartered mechanical, electrical, and electronic engineer and he ran the electronics side of the Department's activities.

By the retirement of John Aldridge and Maurice Feild the Slade School of Fine Art has lost two outstanding and dedicated members of its teaching staff, who have given long and devoted service not only to the School but also to the College. Both distinguished artists, they will be greatly missed.

Miss Betty M. Baker retired after thirty-five years' service with the College administration. She joined the Registrar's Department in 1935, and became private secretary to the Provost in 1938. Since then she has served as private secretary to four Provosts—Sir Allen Mawer, Sir David Pye, Lord Evans, and Lord Annan—a unique experience unlikely to be equalled. Miss Baker will be missed by many of us for many reasons—not least, for her own charming personality, and her invariable helpfulness and cheerfulness, the latter the more remarkable in recent times, when her health was sometimes less than good; though only the Provosts whom she has served could fully appreciate her total discretion, her unflagging industry, and her comprehensive grasp of a diverse flood of business.

The Library lost a devoted member of its staff with the retirement of A. E. Tooth, who had been an Assistant Librarian for over forty-one years. He made great contributions to the Library, in particular with his work on the Library catalogue and the revisions of the cataloguing rules, and with the service he gave to the Scandinavian collections. For many years he had undertaken voluntarily the editorship of *The Link*, the newsletter for old students of the School of

Librarianship and Archives. The Library Committee recorded its thanks for Mr Tooth's long and distinguished service to the Library.

RESIGNATIONS

Two members of the College Committee resigned during the session. Mr F. J. Stephens, who was elected to an Honorary Fellowship of the College in 1958, had been a member of the Committee since 1953, and its Vice-Chairman since 1963, and had also served on a number of other standing committees. The College owes him a great deal for the part he played in the appeal to industry, which attracted generous donations towards the cost of the new Engineering Building. Mr E. M. P. Welman resigned from membership of the College Committee and the Finance Committee, having served on both since 1963, but happily the College will still have the benefit of his advice through his continued membership of the Investments Committee.

Five professorial appointments were resigned during the session.

Michael Abercrombie, who left in June 1970 on his appointment as Director of the Strangeways Research Laboratory at Cambridge, came from Birmingham to a lectureship in the Department of Anatomy and Embryology in 1947. He became Reader in Embryology in 1950, following the resignation of Professor G. R. de Beer, and the title of Professor of Embryology was conferred on him in 1959. In 1962 he was appointed to the Jodrell Chair of Zoology and Comparative Anatomy and the Headship of the Department in succession to Professor P. B. Medawar. During his years at University College he made important contributions to the study of wound healing and the mechanisms by which cells in tissue culture come to rest relative to each other. He was elected a Fellow of the Royal Society in 1958. He had a considerable reputation within the College as a teacher, and outside through the founding and editing, with his wife, of *New Biology* and the publication of the Penguin *Dictionary of Biology* in collaboration with his wife and Dr C. J. Hickman.

Professor A. H. Chilver resigned from the Chadwick Chair of Civil Engineering and the Headship of the Department of Civil and Municipal Engineering at the end of the autumn term to become the first Vice-Chancellor of the newly-constituted Cranfield Institute of Technology. He came to University College from the University of Cambridge in 1961, and during his tenure of the Chair he was extremely successful in developing and modernising the undergraduate teaching and in building up internationally recognised research schools, particularly in structural mechanics, traffic studies, and public health engineering. The award by the Institution of Civil

Engineers of the Telford Gold Medal for 1961–62 was a recognition of his own outstanding contribution in structural engineering. His widespread activities outside the College have included the chairmanship of the Civil and Aeronautical Engineering panel of the Science Research Council and from 1967 to 1969 the directorship of the Centre for Environmental Studies. His counsel and leadership will be greatly missed in the Civil and Municipal Engineering Department.

Professor L. D. Ettlinger resigned at the end of the session, on his appointment as Professor of History of Art in the University of California, Berkeley. He came to the College from the Warburg Institute in 1959 to take up the then part-time Durning-Lawrence Chair of the History of Art attached to the Slade School of Fine Art, which he held in conjunction with a part-time post at the Institute. In 1964 his Durning-Lawrence Chair became a full-time appointment and in the following year, on his initiative, a separate Department of History of Art was established in the College, running Joint Honours Degree courses with other departments. We deeply regret the loss of a distinguished scholar and stimulating colleague.

Professor R. A. Humphreys belongs to that small group of distinguished scholars and scientists who have spent the whole of their academic careers at University College. Soon after his appointment in 1932 he began to develop the teaching of Latin-American history; and the impressive growth of these studies, not only in London but throughout the country, owes more to him than to any other scholar. After war service in the Foreign Office he became Professor of Latin-American History in 1948 and was Head of the Department of History from 1956 to 1961. He was appointed part-time Director of the Institute of Latin American Studies at its establishment in 1965, and on its conversion to a full-time post he resigned his Chair at University College at the end of the session. Happily, his association with the Department of History at the College will be maintained by his appointment as Honorary Research Fellow. Professor Humphreys has served the College, University, and government in many ways and was an extremely successful President of the Royal Historical Society. A fluent, witty, and lucid lecturer and writer, he is equally at home as a balanced and skilful administrator. Amidst these heavy duties he has published his important books and articles and has been much sought after as a lecturer, delivering the University of London Creighton Lecture in 1964 and the Raleigh Lecture at the British Academy in 1965. His services to his subject, his College and the University have been outstanding.

Professor Jack Lewis left at the end of the session, after his second stay in the Department of Chemistry, to take up the Chair of Inorganic Chemistry at Cambridge. He joined the Department as a Lecturer in 1957, having already been in close collaboration with some of its members, and during his appointment he revitalised the practical course in inorganic chemistry and became well-known as an outstanding lecturer and teacher. The title of Reader was conferred on him in 1961. He was offered the Chair of Inorganic Chemistry at Manchester in 1962, and spent five years there before returning to University College in 1967 to occupy one of our Chairs of Chemistry. He built up a vigorous school of research in magnetochemistry and in organo-metallic chemistry and made major contributions to the Department and to the College in other ways.

OBITUARY

We record with regret the death during the year of a number of members and former members of the College.

Among them was Dr David Heron, a Fellow since 1918, who had given outstanding and devoted service to the College. He entered as a research student in Statistics in 1905, became Galton Fellow in 1911, and was Assistant Director of the Galton Laboratory from 1913 to 1916. He served continuously as a member of the College Committee from 1926 until 1961, and during that period he was a member of a large number of standing committees. He was Joint Treasurer of the College from 1946 to 1948 and Treasurer from 1948 to 1952, Chairman of the Finance Committee from 1948 to 1952, the Pension and Superannuation Committee from 1948 to 1960, and the Investments Committee from 1948 to 1953. The formation of the Student Health Association in 1945 owed much to his initiative and advice, and he continued to serve on its committee until 1959 and as its Treasurer for most of that time. The College was fortunate to have had for so long the benefit of his prudent and far-sighted judgment and his forthright counsel.

Dr Grace Eggleton, who died on 13 August 1970, first came to the College as a student in 1920, and when she retired as Reader in Physiology in 1966 her association with the Physiology Department had extended over thirty-eight years. She was elected to a Fellowship of the College in 1948. Her outstanding scientific contribution was the part she played in the discovery of phosphagen, an important substance on which research continues in the College and elsewhere. On her retirement, the Annual Report of the College included a tribute to her in the following words: By her independence, integrity,

and lack of bigotry—qualities embodying the spirit of University College—she helped to set the tone of the Department, and influenced many generations of students. Especially during the war, in the difficult period when the College was evacuated, she worked energetically to preserve continuity and keep the Department going.

Dr C. A. Hart died on 27 July 1970. He came to the College as a student in 1920 and was a member of the staff in the Faculty of Engineering from 1925 to 1939. During the war he was responsible for the development of the application of radar to air survey, and for this he was awarded the Murchison Grant of the Royal Geographical Society in 1946. He returned to the College in 1946 as the first holder of the Chair of Surveying and Photogrammetry, which had been established as a result of his energy and foresight. He resigned from the College in 1950 to become, at the invitation of Mr Nehru, Vice-Chancellor of India's first technical university at Roorkee. In 1954 he went to Africa as Rector and Principal of the Nigerian College of Art, Science, and Technology, and he returned in 1960 to become for three years Director of the London Master Builders' Association. He was elected a Fellow of the College in 1948 and the C.M.G. was conferred on him in 1958.

Other Fellows of the College who died during the year were: Professor F. W. R. Brambell, formerly Lloyd Roberts Professor of Zoology and Honorary Director of the Agricultural Research Council's Unit of Embryology at the University College of North Wales, Bangor; Dr Tien-Hsi Cheng, Member of the Permanent Court of Arbitration at The Hague and of the Panel for Inquiry and Conciliation of the United Nations, and formerly Chinese Ambassador to Great Britain; Professor Morris Ginsberg, formerly Martin White Professor of Sociology at the London School of Economics and, from 1913 to 1924, a member of the staff of the Department of Philosophy at the College; and Sir Alec Zealley, formerly Chairman of the Remploy Corporation Limited.

The College lost by death five members of its academic staff.

Professor Ernest Baldwin died suddenly at the age of sixty on 6 December 1969. He entered St John's College, Cambridge, as an exhibitioner in 1928, and obtained a first in both parts of the Natural Sciences Tripos, including Biochemistry, Part II. He was a Fellow of St John's College and later Lecturer on the staff of the Biochemistry Department at Cambridge. He came to University College on 1 January 1950 as Professor of Biochemistry and Head of the Department, and during his time at the College he developed the B.Sc. in Biochemistry and saw a very great increase in the numbers of both

staff and postgraduate students in his Department. From 1952 to 1955 he served as Dean of the Faculty of Medical Sciences. Ernest Baldwin made distinguished contributions to comparative biochemistry, and through his teaching and writing inspired many students with an interest in the subject which remained dear to his heart all his life. He made a world-wide reputation for himself with his book, *Dynamic Aspects of Biochemistry*, first published in 1947, which ran to five editions and was translated into seven languages, thus winning acclaim for British biochemical teaching. In 1963 he was elected a Fellow of the New York Academy of Sciences. A kindly and gentle man, he will be sadly missed by his many friends.

The Department of Mathematics suffered a serious loss in the death of Dr R. Capildeo on 12 May 1970. He entered the College as a student in 1939 and was president of the Union Society for a short time in 1945. He held part-time appointments in the Department from 1944, and was a full-time member of staff, first as Assistant Lecturer and then as Lecturer, for most of the period between 1947 and 1958, and from 1963 up to the time of his death. In 1958 he was called to the Bar. For a short time he was Principal of the Trinidad Polytechnic, but he resigned to become leader of the Trinidad and Tobago Democratic Labour Party, a position he held with great distinction until 1967. Apart from his abilities as a mathematician and a lecturer, his sympathetic and understanding approach to student problems were of the greatest value in fostering happy relations within the Department.

A. Mroz, Lecturer in the Department of Photogrammetry and Surveying, died on 5 October 1969. He served with the Polish Forces in this country, and took part in the airborne attack at Arnhem, where he lost a leg. He came to the College in 1950, after three years as a lecturer at the Polish University College. Although an extremely competent ground surveyor, with great experience of cadastral work, he devoted much of his time to photogrammetry and was very interested in the efficient adjustment and operation of plotting equipment. His death is a great loss to surveying generally and in particular to the College, of which he was a devoted and loyal member for nearly twenty years.

C. W. J. Smeed, Lecturer in the School of Environmental Studies, died on 5 August 1970. He entered the Bartlett School of Architecture as a student in 1924, and on the completion of his course in 1929 continued as a postgraduate student until 1933. After periods in private practice and with the architects' department of the London Passenger Transport Board, he joined the staff of the School in 1949

and for many years lectured on building construction, specifications, and professional practice. His enthusiasm for, and commitment to, teaching, together with the warmth of his personality, greatly endeared him to both staff and students, and his loss is sadly felt.

John J. Clarke, who had given a long period of devoted service to the Department of Town Planning, died on 1 October 1969 at the age of ninety. He held the part-time appointment of Special Lecturer in law in its relation to town planning for twenty years from 1943, and afterwards, up to the time of his death, he was Honorary Research Associate and tutor in the Department. His reference books on the law and education, housing, local government, building, planning and welfare went into numberless editions. He was the last link between the Department and the beginnings of the statutory town planning movement in this country.

In November 1969 the sad news was received of the death of L. H. Macklin, who was a member of the College Committee from 1950 to 1964. He gave valuable service to the College, not only as a member of the College Committee, but as a member, and later Chairman, of both the Managing Committee and the Pension and Superannuation Committee, and as a member of other committees, as well as the College Court of Discipline.

Among former members of the academic staff who died were C. W. Bonniksen, a former student and from 1924 to 1929 member of staff of the Department of Chemistry; Dr R. E. Bradbury, a former student of the Department of Anthropology and a member of its staff during the periods 1954–56 and 1961–64; Professor J. Černý, Edwards Professor of Egyptology at the College from 1946 to 1951 and Professor Emeritus of Egyptology in the University of Oxford; Dr F. A. Freeth, Honorary Lecturer in the Department of Chemistry from 1928 to 1946 and in the Department of Chemical Engineering from 1948 to 1952; Professor A. H. M. Jones, Professor of Ancient History at the College from 1946 to 1951 and then in the University of Cambridge; Mrs Elinor J. Owen (née Vaughan), a former postgraduate student in Classics and member of staff of the Departments of Latin and Greek, 1927–34 and 1945–47; and Professor G. Tillotson, Professor of English Literature at Birkbeck College, who was a member of staff in the Department of English Language and Literature at the College from 1931 to 1944 and Reader in English from 1940 to 1944.

In the course of the year the College heard with regret of the death of many of its former students. Among them were Evelyn Ansell, formerly Deputy Librarian of the University of Cambridge; H. G.

Coulter, who had been the architect of a number of the College's major building projects; Sir William Dobell, the landscape and portrait painter; A. W. Kay, Chairman of the People's Theatre Arts Group, Newcastle upon Tyne; C. B. Oldman, formerly Principal Keeper of Printed Books at the British Museum; Sir Michael Rivalland, who had been Chief Justice of Mauritius since 1967; and Mrs Dorothy Knight Waddy, Q.C., a County Court Judge.

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[1 AUGUST 1969—31 JULY 1970]

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J. W. Scott, B.A., A.L.A., Librarian

M. A. Screech, D.LITT., Professor of French

M. J. Seaton, PH.D., F.R.S., Professor of Physics

O. Skutsch, DR.PHIL., Professor of Latin

R. J. Smeed, C.B.E., PH.D., Professor of Traffic Studies

†Fellow of the College.

C. A. B. Smith, M.A., PH.D., Weldon Professor of Biometry
M. G. Smith, PH.D., Professor of Anthropology
F. Sondheimer, PH.D., F.R.S., Professor of Chemistry and Royal Society Research Professor
J. Spraos, M.A., Professor of Political Economy
S. Stein, PH.D., Professor of Hebrew
K. Stewartson, M.A., PH.D., F.R.S., Goldsmid Professor of Mathematics
M. Stone, PH.D., Professor of Probability and Statistics
K. W. Swart, LITT.D.(LEIDEN), Professor of Dutch History and Institutions
J. A. C. Thomas, M.A., LL.B., Professor of Roman Law
E. H. Thompson, O.B.E., M.A., SC.D., F.R.I.C.S., Professor of Photogrammetry and Surveying
William Townsend, Professor of Fine Art†
D. A. Turin, DIPL.ARCH., S.C.A., F.I.O.B., London Master Builders Professor of Building
E. G. Turner, M.A., DR.PHIL.ET LETTRES, F.B.A., Professor of Papyrology
C. A. Vernon, D.SC., Professor of Chemistry
P. D. Wall, M.A., D.M., Professor of Anatomy
N. F. Watson, B.ARCH., A.R.I.B.A., Bartlett Professor of Architecture
P. Wheatley, M.A., PH.D., Professor of Geography
D. J. B. White, PH.D., Senior Lecturer in Botany and Microbiology
G. P. Wibberley, M.SC., PH.D., Ernest Cook Professor of Countryside Planning
D. R. Wilkie, M.D., M.B., B.S., M.R.C.P., Jodrell Professor of Physiology
J. S. Wilkie, B.SC., PH.D., F.L.S., Professor of History and Philosophy of Science
Elizabeth M. Wilkinson, PH.D., LL.D., Professor of German
A. P. Willmore, PH.D., Professor of Physics
B. Woledge, M.A., D.DE L'UNIV., Fielden Professor of French Language and Literature
Richard Wollheim, M.A., Grote Professor of Philosophy of Mind and Logic
J. Z. Young, M.A., D.SC., F.R.S., Professor of Anatomy

ASSESSORS

EX OFFICIO—The Sub-Deans of the Faculties:

Arts: C. J. Holdsworth, M.A., PH.D.
Laws: I. M. Kennedy, LL.B.
Environmental Studies: N. F. Watson, B.ARCH., A.R.I.B.A. (to January 1970); R. J. Fisher, A.R.I.B.A. (from January 1970)
Science: C. Dodd, PH.D.
Medical Sciences: Pauline M. Meadow, M.A., PH.D.

ELECTED BY NON-PROFESSORIAL STAFF:

J. H. Callomon, D.PHIL.
P. F. Clarke, M.A., PH.D.
B. L. Davies
A. M. J. Davis, M.A., PH.D.

†Fellow of the College.

D. G. Davis, PH.D.
P. H. Ellaway, PH.D.
R. A. French, M.A., PH.D.
Jane I. Galbraith, M.A., M.SC.
C. E. Gimson, M.SC.(ENG.)
F. B. Goldsmith, PH.D.
M. F. Gretton, B.A.
E. D. R. Honderich, B.A., PH.D.
I. E. Tregarthen Jenkin, M.A.
R. E. Jennings, PH.D.
J. H. Johnson, M.A., PH.D.
Shirley E. Jones, PH.D.
P. H. Kemp, B.SC.(ENG.), PH.D., C.ENG., M.I.C.E., M.I.MUN.E.
K. A. Kermack, PH.D.
A. J. Layton, PH.D.
D. J. MacLeod, B.A.
P. J. Mahoney, B.A.
K. L. Manchester, M.A., PH.D.
H. Marriott, B.ENG., B.SC.(ECON.), C.ENG., F.I.E.E.*
T. D. McFarland, M.A.
Maxine P. M. Merrington, PH.D.
J. R. Morris, B.A., PH.D.
M. E. O'Neill, M.SC., PH.D.
A. G. Parkinson, M.SC., PH.D., D.I.C.
T. A. Quilliam, PH.D., M.B., B.S., D.L.O., M.R.C.S., L.R.C.P.
N. J. Rau, B.A., B.PHIL.
R. W. Rideout, PH.D.
T. P. Roberts, M.A.
A. F. D. Scott, B.SC.
W. A. Smeaton, D.SC., F.R.I.C.
A. J. Smith, PH.D.
D. G. Smith, PH.D.
R. Staveley, B.A., F.L.A.
P. Venning, M.S.R.
R. A. Weiss, B.SC.

*Sub-Dean of the Faculty of Engineering.

APPENDIX III

HONORARY FELLOWS AND FELLOWS

The following elections were made in 1970:

HONORARY FELLOWS

None elected.

FELLOWS

Professor Emmanuel Ciprian Amoroso, C.B.E., F.R.S., Emeritus Professor of Veterinary Physiology in the University of London, and formerly at the Royal Veterinary College; now at the Agricultural Research Council Institute of Animal Physiology, Babraham, Cambridge.

Mr Leopold Brook, Chairman of Simon Engineering Ltd, and Director of many companies.

Professor Geoffrey Ronald Burbidge, F.R.S., Professor of Physics in the University of California at San Diego.

Dr John Gildas Collingwood, a Director of Unilever Limited and Unilever N.V., and Head of the Research Division.

Mr Walpole Sinclair Lewin, Consultant Neurological Surgeon to Addenbrooke's Hospital, Cambridge, and to Army Neurological Unit, Colchester Military Hospital.

Dr (Herbert George) Rodrigo Moynihan, C.B.E., Painter; formerly Professor of Painting at the Royal College of Art.

Professor (Charles) Randolph Quirk, Quain Professor of English Language and Literature in the University of London at University College London.

Sir Sebag Shaw, a Judge of the High Court of Justice in the Queen's Bench Division.

Sir Arthur Wendell Snelling, K.C.M.G., K.C.V.O., British Ambassador to the Republic of South Africa.

APPENDIX IV

PRINCIPAL CHANGES IN THE ACADEMIC STAFF

FACULTY OF ARTS

ANTHROPOLOGY

Appointments: Rosemary L. Harris, M.A., PH.D. (Lecturer), formerly Lecturer, University of Sussex.
D. Hewitt-Emmett, M.SC. (Research Assistant).
R. D. Martin, D.PHIL. (Lecturer), formerly held NATO fellowship.
M. G. Smith, PH.D. (Professor of Anthropology), formerly Professor of Anthropology, University of California, Los Angeles.
Ruth Tringham, M.A., PH.D. (Research Assistant), formerly held Junior Research Fellowship, University of Edinburgh.

Resignation: P. H. Fry, B.A., PH.D. (Lecturer), to Assistant Professorship, University of Brazil.

EGYPTOLOGY

Retirement: W. B. Emery, C.B.E., M.A., D.LITT., F.B.A., F.S.A. (Edwards Professor of Egyptology); to be Senior Research Fellow.

ENGLISH LANGUAGE AND LITERATURE

Appointments: Edith C. Batho, M.A., D.LIT. (Honorary Research Associate), formerly Principal of Royal Holloway College.
M. I. S. Black, B.A. (Research Assistant).
G. T. Doherty, B.A., M.PHIL. (Assistant).
S. A. Fender, M.A., PH.D. (Lecturer), formerly Lecturer, University of Edinburgh.
A. P. G. Ruthven, B.A., A.M. (Lecturer), formerly Assistant Professor, Emerson College, Boston.

Resignation: Mrs Isobel M. Armstrong, PH.D. (Lecturer).

FINE ARTS

Appointments: Stuart Brisley (Part-time Lecturer).
Suzanne Budgen, M.A. (Part-time Lecturer).
M. Challenger (Part-time Lecturer).
Tess Jaray (Part-time Lecturer).
Frank Whitford, B.A. (Part-time Lecturer).

Retirements: J. A. M. Aldridge, M.A., R.A. (Part-time Lecturer).
Maurice Feild (Part-time Lecturer).

Resignations: Michael Kellaway, B.A. (Part-time Lecturer).
Robert Medley (Part-time Lecturer).

FRENCH

Appointments: Felicity R. Baker, B.A. (Lecturer), formerly Lecturer, University of Pennsylvania.
Ruth H. Thomas, B.A. (Lecturer), formerly Assistant Lecturer, University of Leeds.

GEOGRAPHY

Appointments: J. G. U. Adams, M.A. (Lecturer).
Mrs Karel J. Hughes, B.SC. (Research Assistant).

Resignations: Mrs Patricia McK. Anderson, B.SC. (Research Assistant), to Monash University.
D. Thomas, M.A., PH.D. (Reader in Geography), to Chair of Geography, St David's University College, Lampeter.

GERMAN

Appointment: M. Kay Flavell, M.A. (Lecturer).

Resignation: M. Von Poser und Gross-Naedlitz, DR.PHIL. (Assistant).

GREEK

Appointment: G. H. Gellie, M.A. (Visiting Professor), Reader in Classical Studies, University of Melbourne.

HEBREW AND JEWISH STUDIES

Appointments: V. D. Lipman, M.A., D.PHIL., F.S.A. (Honorary Lecturer), Assistant Secretary, Department of the Environment.
N. Wieder, PH.D. (Lecturer), Joint Director of the Institute of Jewish Studies.

HISTORY

Appointments: N. B. Harte, B.SC.(ECON.) (Lecturer), formerly Research Fellow, Institute of Historical Research.
D. J. Tierney, B.SC.(ECON.) (Lecturer).

Resignations: R. A. Humphreys, O.B.E., M.A., PH.D., D.LITT. (Professor of Latin American History), to full-time Directorship of the Institute of Latin American Studies; to be Honorary Research Fellow.
Dame Veronica Wedgwood, O.M., D.B.E., M.A., LITT.D., D.LITT., LL.D. (Special Lecturer); to be Honorary Research Fellow.

HISTORY OF ART

Appointment: Helen D. Weston, M.A. (Lecturer), formerly held temporary appointment in Department.

Resignation: L. D. Ettlinger, PH.D., F.S.A. (Durning-Lawrence Professor of the History of Art), to Professorship of History of Art, University of California, Berkeley.

LIBRARY, ARCHIVE, AND INFORMATION STUDIES

Appointments: T. M. Aitchison, B.A., A.L.A. (Honorary Research Associate), Manager, Information Research, INSPEC, Institute of Electrical Engineers.
R. A. Fairthorne, B.SC. (Honorary Research Associate), formerly Senior Principal Scientific Officer, Royal Aircraft Establishment, Farnborough.

Resignation: Mrs E. Miriam Moore, M.A., A.R.C.M., L.R.A.M. (Honorary Lecturer).

GENERAL LINGUISTICS

Resignation: R. M. W. Dixon, M.A., PH.D. (Lecturer), to Chair of Linguistics and Headship of School of General Studies, Australian National University.

PHILOSOPHY

Resignations: Iris Murdoch, M.A. (Honorary Research Associate).
H. D. Sluga, B.PHIL. (Lecturer), to University of California, Berkeley.

POLITICAL ECONOMY

Appointments: S. Aaronovitch (Research Assistant).
M. J. Stewart, M.A. (Reader in Political Economy), formerly Senior Economic Adviser to Kenya Treasury.

Resignation: P. K. Trivedi, M.SC.(ECON.) (Lecturer), to University of Southampton.

FACULTY OF LAWS

Appointments: M. D. A. Freeman, LL.M. (Lecturer), formerly Lecturer, University of Leeds.
E. Tabachnik, LL.M., formerly part-time Lecturer in Laws, Holborn College of Law, Languages and Commerce.

Resignations: Professor C. Kellenberg, LL.B. (Visiting Professor).
M. B. Nicholson, B.A., PH.D. (Honorary Research Associate).

FACULTY OF SCIENCE

ASTRONOMY

Resignation: G. Fielder, PH.D. (Lecturer), to University of Lancaster.

BOTANY AND MICROBIOLOGY

Appointments: L. V. Crawford, B.A., PH.D. (Honorary Research Associate), Head of Department of Molecular Virology, Imperial Cancer Research Fund Laboratories.
I. Macpherson, PH.D. (Honorary Research Associate), Head of Department of Tumour Virology, Imperial Cancer Research Fund Laboratories.
S. Scher, PH.D. (Honorary Research Associate), Associate Professor, California State College at Hayward.

Resignation: J. W. Anderson, PH.D. (Research Assistant), to Lectureship, La Trobe University, Melbourne.

CHEMISTRY

Appointments: A. Albert, D.SC., PH.D. (Honorary Research Associate), Professor of Medical Chemistry, Australian National University.
Alicia Gastaminza, DR.CHEM. (Honorary Research Associate), from Universidad Nacional del Sur Argentine.
W. D. Johnson, M.SC., PH.D. (Honorary Research Associate), University of New South Wales.
E. Kokot, B.SC., PH.D. (Honorary Research Associate), University of New South Wales.
R. Lopez-Delgado (Honorary Research Associate), holds grant-supported research appointment in Department.
A. A. Newman, D.SC. (Honorary Research Associate), holds grant-supported research appointment in Department.

R. A. Ross, M.SC., PH.D. (Honorary Research Associate), Senior Lecturer, Open University.
Ludwika Sawlewicz, DR.PHIL. (Honorary Research Associate), from Pharmaceutical Institute, University of Basel.
R. Shipolini, D.SC. (Honorary Research Associate), holds grant-supported research appointment in Department.

Retirement: H. G. Poole, M.SC., PH.D. (Reader in Chemistry).

Resignations: Professor R. Ettore, DR.CHEM. (Honorary Research Associate).
W. R. Fitzgerald, PH.D. (Research Assistant), to British Titan Products Ltd, Billingham.
M. Gerloch, PH.D., D.I.C., A.R.C.S. (Lecturer), to Lectureship, University of Cambridge.
B. F. G. Johnson, PH.D. (Lecturer), to Lectureship, University of Cambridge.
J. Lewis, D.SC., F.R.I.C. (Professor of Chemistry), to Chair of Inorganic Chemistry, University of Cambridge.
Professor Nunziata C. Marziano, DR.CHEM. (Honorary Research Associate).
C. J. Pederson, PH.D., B.CHEM.ENG., M.S. (Honorary Research Associate).
Professor V. Ricevuto, DR.CHEM. (Honorary Research Associate).
W. Schmutzler, DR.MED. (Honorary Research Associate).

GEOLOGY

Appointments: F. W. Anderson, D.SC. (Visiting Professor), formerly Chief Palaeontologist, Institute of Geological Studies.
D. Curry, M.A. (Visiting Professor), a distinguished amateur geologist.
E. J. W. Jones, PH.D. (Lecturer), from Lamont-Doherty Geological Observatory, Columbia University.
D. Skevington, B.SC., PH.D. (Honorary Research Associate), Professor of Geology, University College, Galway.

Resignations: Mrs Marjorie Field (née Simpson), B.SC. (Research Assistant).
A. E. S. Mayer, B.SC. (Research Assistant), to Natural Environment Research Council.

HISTORY AND PHILOSOPHY OF SCIENCE

Retirement: J. S. Wilkie, B.SC., PH.D., F.L.S. (Professor of History and Philosophy of Science).

Resignation: P. Feyerabend, PH.D. (Visiting Professor).

MATHEMATICS

Appointment: C. B. Thomas, B.A., PH.D. (Lecturer), formerly Lecturer, University of Hull.

Retirements: J. W. Archbold, M.A. (Senior Lecturer).
P. Du Val, PH.D. (Reader in Geometry).

Death: R. Capildeo, PH.D. (Lecturer).

PHYSICS

Appointments: J. H. Bartley, PH.D. (Lecturer), formerly Assistant Professor, Tufts University, Massachusetts.
J. B. Hasted, M.A., D.PHIL. (Honorary Research Associate), Professor of Experimental Physics, Birkbeck College.

J. McKenzie, M.A., PH.D. (Lecturer), formerly research physicist, Carnegie-Mellon University, Pittsburgh.
D. Rees, PH.D. (Research Assistant), formerly held grant-supported research appointment in Department.
A. D. Smith, B.SC. (Research Assistant), formerly held Science Research Council Studentship.
F. R. Stannard, PH.D. (Honorary Research Associate), Reader in Physics, Open University.
S. M. Trujillo, B.S. (Honorary Research Associate), holds grant-supported research appointment in Department.

Resignations: M. Govan, M.SC., PH.D. (Research Fellow), to research appointment, Tufts University Massachusetts.
T. A. Clark, PH.D. (Lecturer), to University of Calgary.

PSYCHOLOGY

Resignations: D. Legge, PH.D. (Lecturer), to be Head of the Psychology Department, City of London Polytechnic.
G. Sperling, M.A., PH.D. (Honorary Research Associate).

STATISTICS

Appointments: R. J. Brookes, B.SC. (Lecturer), formerly postgraduate student in Department.
A. P. Dawid, M.A. (Lecturer), formerly student in Department.
Mrs Jane I. Galbraith (formerly Stubbes), M.A., M.SC. (Lecturer), formerly held temporary appointment in Department.

ZOOLOGY AND COMPARATIVE ANATOMY

Appointments: J. R. E. Mills (Honorary Research Associate), Senior Lecturer, Institute of Dental Surgery.
W. J. Thomas, M.SC. (Honorary Research Associate), Senior Lecturer in Biology, Goldsmiths' College.

Resignation: M. Abercrombie, M.A., B.SC., F.R.S. (Jodrell Professor of Zoology and Comparative Anatomy), to Directorship of the Strangeways Research Laboratory, Cambridge; to be Honorary Research Fellow.

FACULTY OF ENGINEERING

CHEMICAL ENGINEERING

Appointments: J. Garside, PH.D., C.ENG., A.M.I.CHEM.E. (Lecturer), formerly Technical Officer, Imperial Chemical Industries Ltd.
V. D. Long, PH.D., D.I.C. (Lecturer).

Resignation: D. A. White, M.A., PH.D., C.ENG., A.M.I.CHEM.E. (Lecturer), to be Research Officer, Chamber of Mines, Johannesburg.

CIVIL AND MUNICIPAL ENGINEERING

Appointments: R. E. Allsop, M.A. (Lecturer), formerly I.C.T. Fellow in Department.
T. Dunstan, B.SC.(ENG.), PH.D., D.I.C. (Lecturer), formerly held grant-supported research appointment in Department.

A. J. Grass, B.SC.(ENG.), PH.D. (Lecturer), formerly held honorary appointment in Department.

Resignation: A. H. Chilver, M.A., D.SC., C.ENG., M.I.C.E., M.I.STRUCT.E., A.F.R.AE.S. (Chadwick Professor of Civil Engineering), to be Vice-Chancellor of the Cranfield Institute of Technology.

ELECTRONIC AND ELECTRICAL ENGINEERING

Appointments: J. Forrest, M.A., D.PHIL. (Lecturer), formerly Research Associate, Institute of Plasma Research, Stanford University.

O. J. Davies, M.SC. (Lecturer), formerly held temporary appointment in Department.

I. M. Mason, B.SC.(ENG.), PH.D. (Lecturer), formerly held honorary appointment in Department.

Retirement: F. Brailsford, B.SC.(ENG.), PH.D., C.ENG., F.I.E.E. (Professor of Electrical Engineering).

Resignation: I. M. Stephenson, M.SC.(ENG.), PH.D., C.ENG., M.I.E.E. (Senior Lecturer), to Chair of Electronics, University College of North Wales, Bangor.

MECHANICAL ENGINEERING

Appointments: D. R. Broome, B.SC.(ENG.) (Lecturer), formerly Lecturer, Kingston College of Technology.

W. D. Dover, DIP.TECH., PH.D. (Lecturer), formerly Lecturer, The City University.

R. J. H. Todd, R.C.N.C., C.ENG., A.M.R.I.N.A. (Honorary Lecturer), Ministry of Defence, Ships Division, Foxhill, Bath.

Retirement: T. H. Walker, M.ENG., C.ENG., M.I.MECH.E., M.I.E.E., M.I.E.E.E. (Lecturer).

Resignations: D. K. Brown, M.ENG., R.C.N.C., C.ENG., M.R.I.N.A. (Senior Lecturer).

G. M. C. Lee, B.SC. (Lecturer), to Lectureship, University of Edinburgh.

PHOTOGRAMMETRY AND SURVEYING

Appointment: J. A. Eden (Honorary Research Associate), Research Officer, Directorate of Overseas Surveys.

Resignation: D. W. Proctor, B.SC.(ENG.), A.R.I.C.S. (Lecturer), to Civil Service (Ordnance Survey).

Death: A. Mroz, DIPL.ING., A.R.I.C.S. (Lecturer).

FACULTY OF MEDICAL SCIENCES

ANATOMY AND EMBRYOLOGY

Appointments: Elspeth A. Bradley, B.SC. (Research Assistant), formerly student, Queen's University of Belfast.

G. Gabella, M.D. (Honorary Research Associate), Wellcome Research Fellow.

D. P. C. Lloyd (Honorary Research Associate), formerly Professor at The Rockefeller University, New York.

R. S. Roberts, B.A., PH.D. (Honorary Research Associate), Professor of History, University College of Rhodesia and Nyasaland.

P. Veselý (Honorary Research Associate), from the Institute of Experimental Biology and Genetics, Prague.

Resignations: C. R. Butler, B.SC., PH.D. (Lecturer), to be Assistant Professor, Department of Neurosciences, Faculty of Medicine, McMaster University, Ontario.
Mrs Marjorie A. England, B.A. (Research Assistant), to Lectureship, Royal Free Hospital School of Medicine.
P. Hillman, PH.D. (Honorary Research Associate).
D. G. Jones, B.SC., M.B., B.S. (Lecturer), to Lectureship, University of Western Australia.
Valerie B. Morris, PH.D. (Honorary Research Associate).

BIOCHEMISTRY

Resignations: Daphne Maryanka, B.SC. (Research Assistant), to King's College, London.
Mrs Anne Roobol, B.SC. (Research Assistant), to grant-supported research appointment in Department.

Death: Ernest Baldwin, SC.D. (Professor of Biochemistry).

PHARMACOLOGY

Appointments: E-S. K. Assem, M.B., B.CH., PH.D., M.R.C.P. (Honorary Research Associate), holds grant-supported research appointment in Department.
M. H. Lader, M.D., D.P.M., M.R.C.S., L.R.C.P. (Honorary Research Associate), holds grant-supported research appointment in Department.

PHYSIOLOGY

Appointments: C. G. Clark, M.D., CH.M., F.R.C.S., F.R.C.S.E. (Honorary Lecturer), Professor of Surgery and Director of the Surgical Unit, University College Hospital Medical School.
A. R. Gardner-Medwin, B.A., PH.D. (Lecturer), formerly Research Fellow, Trinity College, Cambridge.
M. B. Segal (Honorary Lecturer), Assistant Lecturer, St Thomas's Hospital Medical School.

Resignations: M. W. B. Bradbury, M.A., D.M. (Honorary Lecturer).
Professor E. J. Denton, PH.D., SC.D., F.R.S. (Honorary Lecturer).
J. Diamond, PH.D., M.B., B.S. (Reader in Physiology), to be Professor and Chairman of the Department of Neurosciences, Faculty of Medicine, McMaster University, Ontario.
J. A. B. Gray, SC.D., M.A., M.B., B.CHIR. (Honorary Lecturer).
O. F. Hutter, PH.D. (Honorary Lecturer).

FACULTY OF ENVIRONMENTAL STUDIES

Appointments: D. V. Donnison, B.A. (Visiting Professor), Director of the Centre for Environmental Studies.
M. Edwards, M.PHIL., M.A. (Lecturer), from private practice.
J. D. Jones (Visiting Professor), Deputy Under-Secretary in the Ministry of Transport.
R. Mace (Lecturer), formerly held part-time appointment in Bartlett School of Architecture.
R. G. M. Webster, M.A. (Lecturer), formerly held part-time appointment in Bartlett School of Architecture.

G. P. Wibberley, M.SC., PH.D. (Ernest Cook Professor of Countryside Planning), joint appointment with Wye College, formerly Professor of Rural Economy, Wye College.

G. P. Youngman, M.A., P.P.I.L.A., M.T.P.I. (Visiting Professor), formerly held part-time appointment in Department of Town Planning.

Retirement: The Rt Hon. Lord Holford, M.A., D.C.L., LL.D., D.LITT., F.R.I.B.A., M.T.P.I., F.I.L.A., A.R.A. (Professor of Town Planning).

Resignations: Professor H. Proshansky, PH.D. (Honorary Research Associate). G. G. Pullen, B.A., A.M.T.P.I. (Lecturer), to Chair of Urban Planning, University of Teheran.

Deaths: J. J. Clarke, M.A., F.S.S., L.M.T.P.I. (Honorary Research Associate). C. W. J. Smeed, F.R.I.B.A. (Lecturer).

APPENDIX V

PUBLIC LECTURES

ENDOWED LECTURES

COMMONWEALTH FUND LECTURES

Professor Edmund S. Morgan, Yale: 'Work and Wealth in Early America' (four lectures)

DOROTHEA COKE MEMORIAL LECTURE IN NORTHERN STUDIES

Professor Alistair Campbell, Oxford: 'Skaldic Verse and Anglo-Saxon History'

LORD NORTHCLIFFE LECTURES IN LITERATURE

Professor D. L. Page, Cambridge: 'The Volcano at Santorini and the Destruction of Minoan Crete' (four lectures)

SHEARMAN MEMORIAL LECTURES

Professor Abraham Robinson, Yale: 'Logic as the Science of Mathematical Reasoning' (three lectures)

INAUGURAL LECTURES

Professor T. J. Chandler, Professor of Geography: 'The Management of Climatic Resources'

Professor G. V. Groves, Professor of Physics: 'The Upper Atmosphere in Motion'

LUNCH-HOUR LECTURES AND FILMS

LECTURES

Mr C. Abramsky: 'Attitude of Lenin to the Jews'

Professor W. Beckerman: 'Export-led Growth Revisited'

Mr B. C. Brookes: 'New Statistical Laws of Scientific Literature and their Exploitation'

Mr M. J. Brown: 'Mathematician's Utopia'

Professor E. H. S. Burhop: 'Frontiers in High Energy Physics'

Mr H. D. Clout: 'Central France—Crisis and Change'

Mr D. J. Daniell: 'The Genesis of Shakespeare's Chronicle Plays'
Mr D. B. Davies: 'The Content of Claude's Paintings'
Mr A. J. R. Groom: 'United Nations Peacekeeping—the prospects'
Professor E. W. Handley: 'New Discoveries in Menander: II—*The Shield*'
Professor J. Hurstfield: 'Toleration and Permissiveness: some historical problems'
Dr J. Lewins: 'Safety of Nuclear Power Stations'
Dr R. Mason: 'The Making of Mountains'
Dr J. D. Moores: 'Fascism, Mysticism, Existentialism(?), Aesthetics'
Mr H. M. Nixon: 'Bookbinding fakes and forgeries'
Dr T. A. Quilliam: 'The Role of the University Communicator'
Dr R. W. Rideout: 'A Fair Crack at the Worker'
Professor L. J. Rydill and Dr A. J. Smith: 'Ocean Resources—boom or bubble?'
Dr W. B. Somerville: 'The Earth does move'
Mr T. Stöverud: 'The Babel of Norway'
Professor E. G. Turner: 'New Discoveries in Menander: I—*The Woman of Samos*'
Dame Veronica Wedgwood: 'Double-Faced Diplomacy: Ambassadors in England during the Civil War'
Dr D. A. White: 'Some Recent Bronze Age Barrow Excavations in Dorset'
Professor Elizabeth M. Wilkinson: 'Sexual Attitudes in Goethe's Life and Work'
Professor Richard Wollheim: 'Toleration and the case against it'

FILMS

'More than Meets the Eye' (B.B.C. Television film on perspective), introduced by Dr A. R. Jonckheere
'Indus Waters' (United Nations film on the irrigation problems of India and Pakistan), introduced by Mr Ken Pittendrigh, United Nations London Office
'Dieppe from both sides' (German and Allied film viewpoints of the Dieppe Raid, 1942), introduced by Mr Clive Coultass, Imperial War Museum
'Time Is' (Dr Don Levy's film on the concept of time), introduced by Professor Thorold Dickinson
'Community Development in Haiti' (from the United Nations film 'Power Among Men'), introduced by Professor Thorold Dickinson
'Wall of Trust' (United Nations film on prison systems in Japan and Ceylon), introduced by Dr E. K. Charlotte Banks
'Bezhin Meadow' (Eisenstein's lost masterpiece reconstructed by Serge Yutkevich), introduced by Marie Seton, Eisenstein's biographer
'La Jetée' (a film by Chris Marker), introduced by Professor Thorold Dickinson

LECTURES ARRANGED BY COLLEGE DEPARTMENTS

This list includes only those lectures given by visiting lecturers or by honorary members of the staff.

ANATOMY AND EMBRYOLOGY

Professor Alfred S. Romer, Harvard: 'South American Triassic Reptiles. Gondwanaland'

BIOCHEMISTRY

Professor David E. Green, Wisconsin: 'The Conformational Basis of Active Transport in the Mitochodrion'

APPENDIX VI

NUMBERS OF STUDENTS, SESSION 1969–70

	Under-graduates	*Post-graduates*	*Totals*
Faculty of Arts	1,203 (340)	368 (137)	1,571 (477)
Department of Political Economy	174 (13)	25 (3)	199 (16)
Slade School of Fine Art	102 (13)	66 (—)	168 (13)
School of Library, Archive & Information Studies	— (—)	100 (36)	100 (36)
	1,479 (366)	559 (176)	2,038 (542)
Faculty of Science	990 (20)	*524 (109)	1,514 (129)
Faculty of Medical Sciences	†264 (—)	5 (2)	269 (2)
Faculty of Engineering	352 (17)	200 (49)	552 (66)
Faculty of Laws	‡392 (37)	§235 (59)	627 (96)
Faculty of Environmental Studies	128 (8)	237 (93)	365 (101)
	3,605 (448)	¶1,760 (488)	5,365 (936)

The figures in brackets indicate the number of part-time students included in the total under each head.

*This figure includes 79 full-time and 23 part-time postgraduate students working in the College Faculty of Medical Sciences who were registered in the University Faculty of Science.

†There are included as full-time 40 students, studying for 2nd M.B., who left the College at the end of the second term, having concluded the course.

‡This figure includes 32 full-time and 1 part-time undergraduate students studying for a B.Sc. in International Relations who were registered in the University Faculty of Economics.

§This figure includes 9 full-time and 3 part-time postgraduate students studying for an M.Sc. in International Relations who were registered in the University Faculty of Economics.

¶Of this number 1,337 were registered for higher degrees of the University of London; the remainder were working for higher diplomas of the University or of the College, or for higher degrees of other universities, or were engaged in research work, or attending postgraduate lecture courses.

APPENDIX VII

GEOGRAPHICAL DISTRIBUTION OF STUDENTS, SESSION 1969–70

	Under-graduates	*Post-graduates*	*Totals*
UNITED KINGDOM	3,262	1,211	4,473
BRITISH COMMONWEALTH OF NATIONS			
Australia	2	30	32
Canada	6	54	60
Ceylon	3	11	14
Cyprus	7	6	13
Hong Kong	16	15	31
India	12	32	44
Kenya	13	2	15
Malaysia	22	3	25
New Zealand	1	13	14
Nigeria	8	20	28
Pakistan	1	24	25
Trinidad	4	6	10
18 other countries	27	35	62
OTHER PARTS OF THE WORLD			
Czechoslovakia	13	2	15
Egypt	0	10	10
France	28	3	31
Greece	5	55	60
Iran	11	5	16
Iraq	4	9	13
Israel	1	9	10
South Africa	3	12	15
Sudan	0	15	15
Turkey	8	15	23
U.S.A.	77	67	144
West Germany	18	7	25
46 other countries (including 1 Stateless undergraduate)	53	89	142
	3,605	1,760	5,365

SUMMARY

United Kingdom	4,473
British Commonwealth of Nations	373
Other parts of the world	519
	5,365

APPENDIX VIII

ADMISSION OF FIRST DEGREE AND FIRST DIPLOMA STUDENTS SESSION 1969–70

FACULTY OF ARTS	*Students admitted October* 1969
B.A. Honours	
Anthropology & Linguistics	3
Archaeology	3
Classics	13
English	38
English & History of Art	2
English & Linguistics	2
French	26
French & Linguistics	3
Geography	10
German	22
German & History of Art	2
German & Linguistics	3
German & Norwegian	1
German & Swedish	2
Hebrew & Jewish Studies	7
History, Ancient, Medieval & Modern	37
History & History of Art	2
Italian	4
Latin	3
Modern Iberian & Latin American Studies	9
Philosophy	17
Philosophy & Economics	3
Philosophy & History of Art	2
Philosophy & Linguistics	2
Scandinavian Languages	14
	230
B.Sc. (Econ.)	50
University Diploma in Fine Arts	20

	Students Admitted October 1969
FACULTY OF SCIENCE	
B.Sc. Degree	
Anthropology	21
Astronomy	9
Biochemistry	21
Biological Sciences	2
Botany & Microbiology	34
Chemistry	58
Chemistry & Physics	8
Geography	51
Geology	20
Mathematics	37
Pharmacology	5
Physics	47
Physiology	6
Psychology	32
Statistics	14
Zoology & Comparative Anatomy	14
	379
FACULTY OF LAWS	
LL.B.	123
B.Sc. in International Relations	17
	140
FACULTY OF ENGINEERING	
B.Sc. (Eng.)	
Civil & Municipal Engineering	25
Electronic & Electrical Engineering	43
Mechanical Engineering	30
B.Sc. (Eng.) in Chemical Engineering	24
	122
FACULTY OF MEDICAL SCIENCES	
2nd M.B.	107
2nd B.D.S.	49
	156
FACULTY OF ENVIRONMENTAL STUDIES	
B.Sc. Degree in Architecture	38
Total	1,135

APPENDIX IX

UNIVERSITY HIGHER DEGREES AND HIGHER DIPLOMAS

FACULTY OF ARTS

D.Lit. A. G. R. Petti.

Ph.D. *Archaeology/Anthropology:* †I. M. Crawford. *Architecture:* A. Lubega. *Classics:* D. R. Marsh, N. K. Rutter. *English:* R. D. Eagleson, J. L. Wisenthal. *German:* Hilary H. Purves. *History:* Wendy E. Davies, T. E. Hartley, D. L. Mackay, J. Smith, M. E. Speight. *Linguistics:* Afar M. E-S. El-Menoufy, Carol C. Mock, C. R. Osborne. *Philosophy:* R. A. Hannay. *Phonetics:* H. J. Paddock, A. J. Baird. *Psychology:* Jane G. Clarke, J. G. V. Davies, R. Meddis, J. M. Wilding. *Town Planning:* N. N. Patricios. [23]

M.Phil. *Anthropology:* Lynn E. Barnett, Helen D. Hornsey. *Classics:* T. K. Burgess, E. R. Fields, Margaret A. Marsh. *English:* Catherine L. I. Hawkes, O. Knowles. *Hebrew and Aramaic:* M. H. Newman. *Library, Archive and Information Studies:* K. E. N. Ingram. *Philosophy:* R. G. Blair, Rohan Collier. *Town Planning:* R. J. Anderson, S. J. Bessant, P. D. Brown, S. W. P. Bulankulame, P. C. Clinch, D. R. Cullingford, B. F. Dodd, R. A. Donithorn, Carlene Dowdy, R. I. Fennell, C. J. Greenhill, R. E. Gutch, P. A. Haynes, P. B. Kettle, T. F. Murphy, C. T. Opstad, Betty C. Ormrod, T. Panzaris, C. P. Randall, D. Simmonds, G. G. Smith, J. A. Stambollouian, C. G. Turner, C. F. Watts. [35]

M.A. (Old Regs.) *Architecture:* Karin H. G. Holt. *English:* D. H. F. Smith [2]

M.A. (New Regs.) *Architecture:* *M. E. Brod, Margaret R. Howes, D. E. Laing, M. A. Mutchnik. *Area Studies:* *C. G. Abel, *Rebecca S. Babcock, R. W. D. Boyce, J. R. Macrow, J. O. Mirick, Christine A. Skelly, J. C. Skerritt, Kobkua Suwannathat, Margaret L. Washbourne. *English:* K. G. Awoonor-Williams, *W-D. Bald, Thelma Y. Blackwood, H. M. P. Davies, Patricia M. Gardner, *Ruth M. Kempson, J. N. Minnis, Helen R. Penge, P. F. V. Waters. *Librarianship:* J. Burkett, S. W. Davis, Dorothy Harrop, P. K. Mutchler, Clodagh L. M. Nethsingha, C. D. Overton, R. A. Stobart, J. S. T. E. Thompson, J. F. B. Tooley, N. A. Webber, Jean B. Wood, P. K. J. Wright. [34]

University Postgraduate Diplomas: Archive Administration, 10; Archive Studies, 12; Egyptology, 1; Fine Art, 30; General Linguistics, 6; Librarianship, 2; Library and Information Studies, 41; Phonetics, 2; Psychology, 13; Social Anthropology, 2; Town Planning, 10. [129]

*Awarded a mark of distinction. †Also registered at another Institution.

FACULTY OF ECONOMICS

Ph.D. *Economics:* E. Rahim. *International Relations:* R. Boardman. [2]

M.Sc. in Economics *Economics:* M. W. Ali, N. Baigent, D. J. Blight, Heba A. Handoussa, A. M. Millwood, R. F. Ruel, A. J. Sexton, A. Vorloou. *International Relations:* Lois A. Brandchaft, A. V. S. de Reuck, *Caroline J. Duncan, A. L. Klug, A. S. M. Minty, L. M. Mngqikana, R. C. Ornstein, *Sophia M. Soteriades, H. D. Wall, L. A. Wright. *Planning Studies:* Francine Dumont, G. C. Mills. [20]

FACULTY OF LAWS

Ph.D. F. R. O. Aruoture, E. D. Brown, P. Buchanan, F. N. Kisob, B. H. Lee, A. Ogunleye. [6]

M.Phil. Narmada M. Agrawal. [1]

LL.M. (Old Regs.) M. A. Ekpe, M. H. Lynn. [2]

LL.M. (New Regs.) B. O. Adegunle, Rume M. Akiri, C. Baxter, Rubie-Marie M. Bethel, J. R. Burnfield, J. A. Carty, T. A. Christodoulidis, R. R. Churchill, F. E. Clark, N. A. Coidan, R. B. M. Cotterrell, D. F. De Stoop, G. C. Eglington, W. C. H. Ervine, Z. A. El Hashim, *P. G. Fitzpatrick, Maria Garganas, D. A. Gray, H. R. Gupta, G. L. Hart, M. A. Hepker, J. M. Herlihy, J. M. Ibegbu, W. G. Jennings, O. Kayode, H. M. Kindred, Kwok Hing Woo, D. J. Lamming, E. M. Loaeza Tovar, P. J. Mahoney, J. D. Morley, M. C. Okpaluba, Gladys O. Omitowoju, C. N. Onukogu, R. J. Perera, A. E. L. Roberts, C. Roussos, H. B. Shaffer, J. Smith, J. B. Thynne, P. G. Turbott, F. Webb, N. Wilmot. [43]

University Postgraduate Diploma in Law, 22. [22]

FACULTY OF SCIENCE

D.Sc. C. Henderson. [1]

Ph.D. *Architecture:* P. D. Cowan, I. Payne. *Biochemistry:* J. P. Baker, D. L. Bloxham, Carolyn E. Bowley, P. R. Brown, M. A. Buttolph, C. J. Coulson, J. S. Easterby, Rachel A. Fisher, Sandra D. Forward, Gillian I. Franklin, Anne Gaskell, L. A. Grivell, D. R. James, Susan Jordan, J. R. Manger, Dilys M. Thomas, D. J. Williams, Janet M. Wimhurst. *Botany:* Carol E. Barker, Beryl Markham, Sung May Lin. *Chemistry:* †C. W. Ashpole, E. H. Bartlett, †Miriam E. Baumber, D. Chadwick, Margaret A. Collard, G. R. Crooks, R. G. Cunninghame, M. N. S. Hill, S. C. W. Hook, T. Keating, J. D. Kelly, †J. M. Kelly, A. J, Kolombos, †M. B. Ledger, P. H. Martin, D. L. Milner, G. W. Mines, S. S. Nagra, R. Niththyananthan, Sarwat S. Shouq, P. E. Smith. A. V. Stokes, R. E. Townsend, Hilary J. Waller, I. G. Williams.

*Awarded a mark of distinction. †Also registered at another Institution.

Geology: M. Owen, A. T. Revi, R. Stabbins, M. A. Woollands. *History and Philosophy of Science:* J. K. Crellin, Joan L. Hawes. *Genetics:* Charlotte A. Chilcot, Phyllis J. McAlpine, Jennifer M. Parrington. *Mathematics:* M. L. Bartlett, J. A. Rickard, R. C. Vaughan. *Microbiology:* Pauline S. Corfield, G. A. Dunn, D. Gaudie, T. S. Gross, Jacqueline Holden, C. F. Thurston. *Pharmacology:* I. K. M. Morton, C. J. Stagg. *Physics:* K. S. Barnes, K. D. Billing, P. J. Bryant, P. C. W. Davies, F. B. Dunning, D. R. Flower, D. J. Gilmore, M. A. Hender, R. R. Hilton, P. D. Kapadia, I. W. Larkin, A. F. M. Moorwood, D. J. Quarmby, M. L. G. Redhead, R. A. Rosner, S. J. Sharrock, Ven-Yee Foo, D. A. Walmsley. *Physiology:* S. P. Canfield, I. B. Gartside, Vivett A. S. Glover, S. D. Roper, M. B. Segal, Rosaline V. Stirling. *Psychology:* B. H. Evans, Ann C. Faraday, Sandra E. File, Zofia M. Kaminska, S. H. Miller, I. B. Stilitz, Catherine J. Weir. *Statistics:* A. Baruya. *Vertebrate Palaeontology:* R. A. Thulborn. *Zoology:* V. K. Ganesalingam, Devra G. Kleiman, A. G. Luckins, Dorothy L. Njeuma, T. A. Partridge, R. A. Weiss. [107]

M.Phil. *Anthropology:* Gillian Ross. *Biochemistry:* D. Ridge. *Geography:* Barbara S. Renvoize, D. J. Unwin. *Pharmacology:* Chan Onn Leng. *Physics:* A. J. Jeffries. [6]

M.Sc. *History and Philosophy of Science:* F. A. McGrath. [1]

M.Sc. in Science *Architecture:* Maysoon S. Al-Wahbi, F. Beigel, S. R. Bryant, J. M. Copley, D. W. Glew, M. B. Gold, K. A. W. Holroyd, *R. A. Nicholson, C. J. Pound, *A. A. L. Reid, A. M. E. Scrimgeour, A. Stáně, C. P. Stone, D. R. Tasker, S. R. Thake. *Biochemical Engineering:* P. R. Foster, Lyse W. Morisset. *Biochemistry:* C. S. Berry, M. B. Cooper, M. T. Deans, E. A. Hammond, Carol A. Mayle, J. D. Ostrow, P. D. Wills. *Conservation:* R. W. Brown, R. F. Burden, C. K. Duquemin, Margaret A. C. Gilvray, Mary Macleod, P. F. Randerson, J. A. Sayer, Lesley P. Smith. *Geography:* Carol J. Bassett. *History and Philosophy of Science:* W. H. Austin, P. L. Gillard, C. A. Hempstead, Irene M. McCabe, J. V. Pickstone, G. J. Smith, J. A. H. M. P. Vanstone. *Hydrogeology:* S. Alam, M. Amin, G. H. Bonney, M. Z. Y. M. El Alem, M. H. Eslampanah, Virginia A. Milton, R. Singh Jhai. *Micropalaeontology:* *Lynn O. Allen, R. A. K. Attewell, R. W. Meyrick. *Physiology:* Janet Carpenter, E. C. Cooke, E. B. Dunne, Kathleen H. Gartside. *Vertebrate Palaeontology:* Jane L. Lewis. [55]

FACULTY OF ENGINEERING

Ph.D. *Chemical:* P. D. B. Bujac, A. L. Louca, T. W. L. Prescott. *Civil:* A. G. Bhole, I. W. Burgess, A. T. Cox, A. Gür, A-S. Hakkert, D. G. Hall, L. C. Holloway, K. C. Johns, Nadia A. E. S. Shehata, J. Y. Uppal, P. B. Williams. *Electrical:* †I. Anderson, *G. R. Babu, D. G. Corr, P. H. Cross, B. Culshaw, M. Nouri, O. C. Penge, G. S. Sangha, A. K. Sharma, U. B. Sheorey, A. W. Snyder, O. I. Szentesi, P. Troughton. *Mechanical:* M. A. Siddiqui, D. J. L. Smith. [29]

M.Phil. *Photogrammetry:* A. F. E-S. M. A. El-Sheikh. *Soil Mechanics:* S. J. Shamash. [2]

*Awarded a mark of distinction. †Also registered at another Institution.

M.Sc. in Engineering — *Biochemical Engineering:* N. M. Abdul-Gaffar, D. G. Andrew, J. C. Aragon Hernanadez, B. J. Powlesland. *Microwaves and Quantum Electronics:* A. H. A-J. Al-Ani, M. D. Byars, D. Markopoulos, I. Muhammad, J. Mun, C. O. G. Obah, O. Ozkan, R. A. Punwani, R. L. Wierich, W. A. Wyn-Jones. *Naval Architecture:* R. V. Babington, M. G. Barrett, P. G. Garner, P. M. Maung, R. Nath, R. J. Osborn, D. H. G. Pickup, P. M. Roberts, G. Rodgers, R. G. Stolze, J. F. Thomas, D. J. Thurman, G. Wyatt. *Photogrammetry:* *P. F. Fagan, P. M. Gibbs, J. B. Wigglesworth. *Surveying:* *T. O. Crompton. [31

FACULTY OF MEDICINE

Ph.D. — *Biochemistry:* K. P. Sinha. *Pharmacology:* R. Kumar, G. M. Smith, I. P. Stolerman. [4]

*Awarded a mark of distinction.

APPENDIX X

COLLEGE AND UNIVERSITY AWARDS TO STUDENTS

COLLEGE AWARDS

Anatomy Prizes—Medical: Fionna P. Moore. *Dental:* J. W. Ferguson.

Charlotte Ashby Prize (*Laws*).—Maria A. Marsaglia.

Babcock & Wilcox Medal and Prize (*Mechanical Engineering*).—C. N. Palmer.

Herbert Batsford Prize (*Architecture*).—Anuk D. K. Chmielinska.

Thomas Witherden Batt Scholarships (*Science*).—P. Bigg; Valerie J. Gross; N. Hamson; I. R. Hoskin; J. L. Manston.

Leonard Bayliss Memorial Prize (*Physiology*).—Lydia M. Brocklehurst.

Bayliss-Starling Memorial Scholarship (*Physiology and Biochemistry*).—E. C. Cooke.

Francis Perch Bedford Prize (*Zoology*).—Maureen L. Mayers.

Bonney Prize (*Geology*).—B. J. Connorton.

Brodrick-Parry Prize (*Geography*).—R. J. Huggett.

The 'Building' Prize (*Architecture*).—R. P. Nissen (December 1969 award).

Carey Foster Research Prize (*Physics*).—K. S. Barnes and M. Brocklehurst, Prize equally divided.

The Chadwick Medal and Prize (*Civil Engineering*).—M. E. Pitt.

Churchill-Jenkinson Prize (*Archive Administration*).—N. H. Bennett and Elizabeth A. Hawke, Prize equally divided.

Antonio Cippico Medal and Prize (*Italian*).—A. G. Lukianowicz.

Lilian Clarke Prize (*Botany*).—Carol M. Blackwell.

Clinton Prize (*Electrical Engineering*).—R. C. Nicol.

Cowley Prize (*Librarianship*).—J. A. Dearden.

Dawes Hicks Postgraduate Scholarships in Philosophy.—C. Dong.

Donaldson Medal (*Architecture*).—N. L. Evans.

Early English Text Society's Prize.—Katherine J. Hudson.

Postgraduate Scholarship in Economics.—A. Vorloou.

Richard FitzGerald Prize (*Laws*).—G. T. Harrap.

Sir Banister Fletcher Medal and Prize (*Architecture*).—R. J. Hughes.

Foyle Prize (*Latin*).—Caroline C. Russell.

Stephen Glanville Memorial Scholarship (*Egyptology*).—G. R. Biggs.

Edith Goodyear Prize (*Geology*).—Wendy M. Lutley.

Eva Grunwald Memorial Prize (*French*).—Christine M. Fry.

Violet Hall Prize (*French*).—K. P. Wren.

Heimann Medal (*German*).—Amanda J. Day.

Elsie Hitchcock Prize (*English*).—M. P. Hoey.

Hollier Scholarships in Greek.—Mirto Dragona-Monachou.

Hollier Scholarships in Hebrew.—Y. Azses; Tala Bar-Haim.

R. B. Hounsfield Prize in Town Planning and Civic Engineering.—I. J. Hocking.

R. B. Hounsfield Prize in Traffic Engineering.—L. Bird.

Hurst Prize in English Law.—P. J. Wilkinson.

Institution of Electrical Engineers' Prize.—R. G. Bryant.

Jackson Lewis Scholarships.—Yuen Y. A. Chan; Noreen E. Grant; Valerie J. Gross; I. R. Hoskin; H. J. T. C. Loewenthal; M. D. Wilcox.

Daniel Jones Memorial Scholarship (*Phonetics*).—Yuen Y. A. Chan.

Jolowicz Prize (*Roman Law*).—D. A. Hardstaff.

Ker Memorial Prize (*English*).—M. Oxenius.

Kitson Prize (*Chemical Engineering*).—G. C. J. Eclair-Heath.

Librarianship and Archives Exhibitions.—Kathleen M. Bolton; C. R. Leggott.

Sir John MacAlister Medal (*Librarianship*).—Merrill R. Oliver.

Sir William Meyer Prize (*Geography*).—Christine M. Melville and Jane Threadgill, Prize equally divided.

Sir William Meyer Prize (*History*).—B. Mains.

Sir William Meyer Travelling Studentships (*History*).—D. J. Brecht; Kathleen E. Crowe; R. W. Roberts; W. Rowlands; Lynda C. Mountford and Christine M. Ratcliffe, Studentship equally divided.

John Stuart Mill Scholarship in Philosophy of Mind and Logic.—C. Dong.

R. B. Hounsfield Prize in Town Planning and Civic Engineering.—I. J. Hocking.

Momber Scholarship in Physics.—D. R. Quarrie.

Morley Medal (*Modern English Literature*).—M. F. Elphee.

Morris Prize (*Geology*).—M. G. Griffiths.

Margaret Murray Prize (*Egyptology*).—Janine D. Bourriau and Anne Millard, Prize equally divided.

Oliver Scholarship (*Botany*).—A. J. Davy.

Perren Studentship (*Astronomy*).—P. D. Bennewith.

Physiology Prizes—Medical: Fionna P. Moore. *Dental:* A. M. S. Brown and J. W. Ferguson, Prize equally divided.

Platt Prizes (*Greek*).—Kay Kellett; Alexandra A. Nagarkav.

Postgate Prize (*Classical Philology*).—S. G. York.

Ramsay Memorial Medal (*Chemistry*).—F. L. Pearce.

Graham Robertson Travelling Scholarship (*Fine Art*).—B. R. Lumsden.

Hester Rothschild Scholarships (*Hebrew*).—Y. Azses; Tala Bar-Haim.

Slade Scholarships (*Fine Art*).—Everilde H. R. Berry; Katherine Edge, Noreen E. Grant.

Hugh Smith Memorial Prize (*English*).—Monica Traylen.

Stevenson Prize (*Applied Mathematics*).—Marilyn Barrett.

Suckling Memorial Prize (*Practical Anatomy*).—C. R. Tillyer.

Sir Andrew Taylor Prize in Architecture.—M. G. Lafferty.

Henry Tonks Prize (*Fine Art*).—Daphne J. Todd.

Tuffnell Scholarship (*Chemistry*).—J. H. Rees.

L. F. Vernon-Harcourt Prize (*Civil Engineering*).—G. D. Hobbs.

Ellen Watson Memorial Scholarship in Applied Mathematics.—M. J. Baggs and Hilary C. B. Curran, Scholarship equally divided.

FACULTY MEDALS AND PRIZES

Arts: Rosa Morrison Medal and Prize.—M. F. Elphee. *Prizes.*—M. Giaquinto; B. Mains; K. P. Wren.

Laws: Andrews Medal and Prize.—A. Grant.

Engineering: Goldsmid Medal and Prize.—H. D. St John.

SESSIONAL PRIZES

Anthropology: Rosa Morison Prize.—June M. W. Rollinson.

English: Campbell Clarke Scholarships.—(1) C. S. Ferns. (2) M. Oxenius. *West Scholarship.*—J. W. Lewis.

French: Rosa Morison Prizes.—(1) Judith E. Clark. (2) Liliane Kott. (3) Felicity A. Macdonald-Smith.

Geography: College Prize.—D. A. Holmes. *Maconochie Prize.*—P. G. Butts. *1903 Prize.*—C. M. Rogerson and J. W. Whitehead, Prize equally divided.

German: Robertson Prize.—Mary M. Robinson. *Willoughby Prize.*—J. F. Slattery.

Greek: Long Prize.—J. S. Feneron.

History: Dolley Prize.—Penelope J. Barker. *Pollard Prize.*—K. E. Hunter and C. D. Smith, Prize equally divided. *West Prize.*—J. N. Livingstone.

Italian: Sir Anthony Panizzi Prize.—Flavia M. Lambert.

Latin: Key Prize.—Kay Kellett.

Philosophy: Dawes Hicks Prizes.—(1) R. G. Brown and Rosemary G. Taylor, Prize equally divided. (2) C. G. Keil.

Scandinavian Studies: Rosa Morison Prize.—Susan E. Barr and Linda M. Stanway, Prize equally divided.

Laws: Andrews Prizes.—(1) J. Hemingway. (2) S. Mason. (3) I. G. Urquhart. (4) P. J. Wilkinson. (5) C. G. P. Woodford.

Astronomy: Huggins Prize.—R. S. Ellis.

Biochemistry: Jack Drummond Prize.—Jean A. Mellor. *Plimmer Prize.*—T. E. Sensky.

Botany: Darwin Prize.—R. J. Perkins. *Robert Hooke Prize.*—C. B. Munn.

Chemistry: C. K. Ingold Prizes.—(1) Alison Forster. (2) M. K. Franks. (3) I. R. Harper.

Geology: Chubb Prize.—N. G. De'ath, R. Hall and Susan E. Pryce, Prize equally divided.

Mathematics: Filon Prize.—E. W. Davies and R. J. Gardner, Prize equally divided. *Hill Prize.*—S. Gallivan. *Jeffery Prize.*—Dianne Gedalla and B. P. Norris, Prize equally divided.

Physics: William Bragg Prize.—A. R. G. Jackson. *Oliver Lodge Prize.*—N. P. Simons. *Wood Prize.*—A. G. Michette.

Physiology: Foster Prize.—Susan E. Smith. *Sanderson Prize.*—D. A. Wickershaw.

Psychology: McDougall Prize.—Deena C. Segal. *Spearman Prize.*—Gyda Myrvang.

Statistics: Egon Pearson Prize.—S. R. Hartley. *Karl Pearson Prize.*—B. Levanthal.

Zoology: (1) Sandra D. Barlow. (2) P. L. Stern.

Chemical Engineering: Goldsmid Prizes.—(1) M. Levy. (2) S. J. Irving.

Civil and Municipal Engineering: Goldsmid Prizes.—(1) M. D. Casey. (2) A. M. Pishori.

Electronic and Electrical Engineering: Goldsmid Prizes.—(1) A. Wong Pun Chiu. (2) Lam Choo Phui.

Mechanical Engineering: Goldsmid Prizes.—(1) J. Kubie. (2) B.-M. Nurali.

UNIVERSITY AWARDS

UNIVERSITY POSTGRADUATE STUDENTSHIPS

French: Diana B. King; Jennifer A. L. Powell. *General Linguistics:* J. S. Mallison. *History:* M. S. J. Hoodless. *Mathematics:* A. J. T. M. Ostoja-Ostaszewski (moiety of Sherbrooke Studentship). *Philosophy:* S. Das.

APPENDIX XI

UNIVERSITY FIRST DEGREE AND DIPLOMA EXAMINATION RESULTS

FACULTY OF ARTS

B.A. Honours	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Total
Classics	—	4	5	1	10
English	3	18	20	7	48
English and History of Art	—	1	—	1	2
French	4	13	7	1	25
French and History of Art	—	—	1	—	1
German	4	10	6	2	22
Hebrew	1	1	—	—	2
Hebrew Lit. & Jewish History	—	—	1	1	2
History	2	13	15	—	30
Italian	—	1	3	1	5
Italian & History of Art	—	1	—	—	1
Modern Iberian & Latin-American Regional Studies	—	3	1	—	4
Philosophy	3	12	3	1	19
Scandinavian Languages	—	—	4	1	5
	17	77	66	16	176

B.A. (Aegrotat)	Pass	Total
English	2	2

University Diploma in Fine Art: 20 students passed.

FACULTY OF LAWS

	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
LL.B.	2	21	33	17	7	80

FACULTY OF SCIENCE

B.Sc. Degree	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
Anatomy	3	6	2	1	—	12
Anthropology	—	8	10	2	1	21
Astronomy	—	1	5	—	—	6
Biochemistry	2	9	14	1	—	26
Biology	—	1	—	—	—	1
Botany	—	—	2	—	—	2
Chemistry	6	7	12	10	2	37
Combined Sciences	—	—	—	—	1	1
Genetics	—	1	2	—	—	3
Geography	5	31	21	1	—	58
Geology	—	5	8	1	—	14
Mathematics	5	7	12	11	2	37
Microbiology	2	6	7	—	1	16
Pharmacology	5	3	2	1	—	11
Physics	7	7	10	8	8	40
Physiology	—	8	10	—	—	18
Psychology	4	15	11	3	1	34
Statistics	—	3	6	4	3	16
Zoology	4	5	4	1	—	14
	43	123	138	44	19	367

B.Sc. in Architecture, Planning and Building	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
	4	10	16		—	38

B.Sc. (Special) in Architecture, Planning and Building	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
	—	—	—	1	—	1

FACULTY OF ENGINEERING

	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
B.Sc. (Engineering)	9	16	17*	10	4	56
B.Sc. (Engineering) in Chemical Engineering	7	13	9	6	—	35

*Total includes 2 External students

FACULTY OF ECONOMICS

	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
B.Sc. (Economics) College Regulations	1	14	23	11	—	49
B.Sc. (Economics) Aegrotat College Regulations	—	—	—	—	1	1

FACULTY OF MEDICINE

Second Examination for Medical Degrees: 97 students passed.

Second Examination for Dental Degrees: 46 students passed.

COLLEGE DIPLOMAS AND CERTIFICATES

FACULTY OF ARTS

Diploma in English Linguistic Studies: Constance Bordwell; Vivian James Cook. [2]

Diploma in Film Studies: Michael John Edwards; Alexander George Hooper. [2]

Certificate of Proficiency in Phonetics: Yasmin Ahmed; Claude Paulette Begliuomini; Abdelwahab Bennani; Gabriella Breviglieri; Annie Marie Marguerite Cabassut; Sally Elizabeth Carter; Teresa Susana Chaves; Judith Ellen Clark; Clóvis de Almeida; Michèle Yvette Duigou; Lyn Margaret Evans; Pierluigi Fontana; Geraldine Anne Hazzard; Vicenta del Pilar Herrero; Geoffrey Neville Hurrell; Elisbeth Avril Kostick; Haruko Kubo; Asher Laufer; Max Laveuve; Felicity Anne MacDonald-Smith; John George Mackenzie; Jeronima Morales; Elizabeth Anne Morris; Ermanno Ottonello; Maria Papachristodoulopoulou; Michel Yvon-Marie Piquet; Nicholas Robert Louis Mansvelt Raemaekers; Christopher Wyndham Randall; Margaret Anne Robertson; Richard Aspley Robinson; Dominique Romeyer-Dherbey; Franca Salvetti; Anne Semple; Marie Françoise Sename; Robin Deirdre Smith; Jeanne Mary Strickland; Frances Elizabeth Terry; Elaine Tustin; Margherita Ulrych; Johannes Peter Vallen; Beatrijs van Den Top. [41]

Diploma in Urban Studies (Developing Countries): Kalyan Biswas; Potluri Bapaiah Chowdary; Paterna Espina; Augustine Hamwela; Mir Mahfuzul Haque; Mohammad Nazibul Hussain; Abd El Hamid Youssef Kamal; Soeripto Koesoemowinoto; Jorge Bernardo Londono; Thaung Lwin; Philip Franklyn Valentine Manly-Spain; Maung Than Naing; Raghavan Vasudevan Pillai; Narayanaswami Rajagopal; Ramirez Ronaldo Ramirez; Sara Maria Teresa Rossi; Ramesh Chandra Sinha; Luis Bruno Vicario Gallicchio; Fortunatus Oyeyinka Williams; Asuman Yücel. [20]

FACULTY OF LAWS

Certificate in English and American Law: James Corwin Aranda; Everett John Athens; Timothy John Brandt; Michael William Brennan; John Micheal Burman; John Lee Conner; Russell Mark Cottrell; Robert George Frie; Gary William Gottschlich; Kenneth Henry Hoch; Benjamin Joseph Hoey; John Lester Holgerson; Theodore John Leo; Howard John Moore; David Lester Naylor; John Samuel Rakitan; Robert Bernard Schlather; David Robert Wall; Peter Guthrie Weisenberger; Timothy Charles Westfall. [20]

FACULTY OF SCIENCE

Diploma in Architecture: One Year Diploma: Samir Abdulhak; Nicholas Knowles Allen; Lawrence Charles Atkison; David Richard Banks; Alfred Edward Bews; Mark Russell Billing; Gerald Frank Browning; Stephen Douglas Buck; Janet Elisabeth Crane; Carlton Morris Davis; Gamini Suranjith de Silva; Harriet Joanna Eley; Michael Bruce Fairbairn; Timothy John Fanstone;

Panagodage Gemunu Kanishka Fernando; Ann Marie Françoise Meisen Grut; Robert John Harrison; Richard Gordon Hayes; Ian Martin Hogan; Robert John Hughes; David Antony Hunt; Peter David Jenkins; Peter Troman Jewkes; Simon Graham Johns; Roger Frank Jowett; Vasant Vasudeva Kamath; Peter Maxwell Kitchen; Michael Gerald Lafferty; Linda Lee Bei Bei; Gareth Llewelyn Lewis; Peter Mervyn Liddiard; Andrew James McLeod; John Malaiperuman; Brian John Marrows; Sousan Niroo; David Martin Porter; Michael Elphick Rainey; Susan Elizabeth Rostas; Peter Scheid; Robert James Lethaby Stewart; Terence John Still; Ian Martin Tatlow; Neil Gartshore Thomson; Ian James Tod; Daniel Leigh Usiskin; Francis John Wilton; Kelly Wai-Shuen Wong. [47]

Two Year Diploma: Martyn Thomas Brooks; Frederick Gordon Chinery; David Winston Dunster; Pierre-Georges-Robert Goumain; John Stuart Hawley; Lee Wing Kan; Duncan Macintosh; Bryan Richard Polikoff; Daniel Edward Sears; Richard Felix Sheldon. [10]

Diploma in Conservation: Phillip Nigel Bradley; Nicholas Martin Draycott Brown; Roy Walter Brown; Richard Felix Burden; Colin Keates Duquemin; Margaret Ann Catherine Gilvray; John Fagen Handley; Mary Macleod; Roger Mitchell; Patricia Janet Pickard; Peter Frederick Randerson; Jeffrey Arthur Sayer; David Jeremy Shorthouse; Lesley Patricia Smith. [14]

Diploma in Hydrogeology: Siraj Alam; Muhammad Amin; Geoffrey Herbert Bonney; Mohamed Zafer Yacoub Mohamed El Alem; Mohammad Hossein Eslampanah; Yong-Il Kwon; Virginia Anne Milton; Michael John Morrey; Rabinder Singh Jhai. [9]

Diploma in Micropalaeontology: Manijeh Barzegar Khalili; Sad Hasan Saleh Basha; Avinash Chandra; Catherine Ann Croxton; Michael Dempsey; Mokhlesur Rahman. [6]

Diploma in Space Science: John Christopher Gilbert; Derek Webber. [2]

FACULTY OF ENGINEERING

Diploma in Biochemical Engineering: Noor Mohamed Abdul Gaffar; Derek George Andrew; Julio Cesar Aragon Hernandez; Peter Reynolds Foster; Lyse Winnifred Morisset; Brian John Powlesland. [6]

Diploma in Chemical Engineering: Sarath Ananda Kumara Abayawardena; David Blake; John Alan Carey; David Philip Malcolm Clayton; Stuart Clifford Collie; Peter Herbert Downs; Anwar Alam Faruqui; John Ogden Francis; John Hegarty; Thomas Reid Kelly; Trevor Stewart Lewis; Michael James Lunniss; Ramalingam Tharmalingam; Donald Hendry Thomson. [14]

Diploma in Naval Architecture: Roger Vincent Babington; Michael Graham Barrett; Peter George Garner; Percy Maung Maung; Rajeshwer Nath; Russell John Osborn; David Harold Gordon Pickup; Peter Miles Roberts; George Rodgers; Rudolf Gustav Stolze; John Francis Thomas; David John Thurman; George Wyatt. [13]

Diploma in Photogrammetry: Gordon Ernest Bower; Michael James David Brand; Robert Melville McDougall. [3]

Diploma in Surveying: Michael Hereward Brent Jensen; John Peter Webb. [2]

Certificate in Town Planning: Daniel Kweku Abrampah; Leonard Ernest Almond; Victor Fuad Ammoun; Oya Balamir; Alvin Bashforth; Graham Anthony Gordon Bell; Christopher John Lawrey Clarke; James Robert Pare Clarke; Graham James Clements; Kenneth John Hendry Crisp; Daniel Elijah Ezekiel; Terence Courtney Franklin; Roger Godwin; Michael Peter Harryman; Gordon Denzil Hindle; Ian James Hocking; Owen Thomas Humphreys; David Edward King; John Robert Mabey; Diane Leonie McDonald; Pran Nath Madan; Alan Thomas Miller; Michael Edward New; Bernard Alan Newman; Peter John Nixon; Michael Stanley Parkes; Nigel David Phethean; Paul Valmond Power; Clive William Richardson; John Michael Roblin; Drummond Charles Harold Robson; Theodore Rubin; Peter William Sargeant; Stephen Albert Shaw; John Vaughan Chetwynd Talbot; Edmund Waller; Stefan Amos Zins. [37]

APPENDIX XIII

BENEFACTIONS, DONATIONS, RESEARCH GRANTS AND CONTRACTS

The College Committee makes grateful acknowledgment of the following:

AGRICULTURAL RESEARCH COUNCIL

(1) £5,568 for the Department of Botany and Microbiology for the purchase of an amino-acid analyser system and accessories.

(2) £1,552 for research in the Department of Botany and Microbiology on intergeneric hybridisation between Fragaria and Potentilla.

(3) £1,442 for research in the Department of Botany and Microbiology on the control of carbon dioxide assimilation in photosynthesis.

(4) £1,215 for research in the Department of Chemistry on control mechanisms of biosynthesis of terpenes in higher plants.

THE ARTHRITIS AND RHEUMATISM COUNCIL

£2,773 10s. for research in the Department of Pharmacology on the chemical structure of LNPF.

ASSOCIATED OCTEL COMPANY LIMITED

£250 per annum for seven years, in support of an established Chair in the Department of Chemical Engineering—Dr Mark Guter appointed.

EMERITUS PROFESSOR H. HALE BELLOT

A bequest of approximately £10,000, to be used absolutely at the College's discretion, and a valuable collection of prints and pictures (see pages 17 and 137).

BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST UNIVERSITY

$240 for a fellowship supply allowance in the Department of Human Genetics and Biometry.

BRISTOL-MYERS COMPANY

$9,750 for an investigation in the Department of Biochemistry of the different effects of hetacillin and ampicillin on bacterial cell walls.

THE BRITISH ACADEMY

(1) £4,850 for work in the Department of Greek on unpublished Oxyrhynchus Papyri.

(2) £2,000 for 1968–69 towards the cost of the production of a definitive edition of the works of Jeremy Bentham.

BRITISH EMPIRE CANCER CAMPAIGN FOR RESEARCH

(1) £2,221 for research in the Department of Biochemistry on the effects of aflatoxins and other carcinogens on membrane polysome interactions *in vivo* and *in vitro*.

(2) £2,168 and £1,546 for research in the Department of Pharmacology on tumour immunology.

British Heart Foundation

(1) £10,393 for research in the Department of Biophysics on the correlation between calcium fluxes and contractility of the heart.

(2) £12,620 12s. for research in the Department of Physiology on the effects of inotropic interventions on the mechanical properties of heart muscle.

California Foundation for Biochemical Research

$1,500 for a studentship in the Department of Botany and Microbiology.

Jonathan Cape Limited

£75 per annum for seven years, to provide for an annual lecture, to be known as 'The Neale Lecture in English History', to mark the eightieth birthday of Professor Sir John Neale on 7 December 1970 (see also page 17).

Carnegie Endowment for International Peace

£5,000 in support of the Centre for the Analysis of Conflict within the Faculty of Laws.

Centre for Environmental Studies

£1,824 for the School of Environmental Studies for a study of New Ash Green.

Ciba Laboratories Limited

£1,940 for research in the Department of Biochemistry on exercise and muscle metabolism.

Civil Service Department

£10,000 for a study in the School of Environmental Studies of electronic person-to-person communications.

Constructors John Brown Limited

£1,000 per annum for seven years in support of an established Chair in the Department of Chemical Engineering—Dr Mark Guter appointed.

Department of Education and Science

(1) £8,000 and £3,997 for a study in the School of Environmental Studies of the use of space and facilities in universities.

(2) £1,794 for research in the Department of Phonetics into laryngographic analysis and the teaching of intonation.

Eli Lilly International Corporation (London Branch)

£750 for a postgraduate studentship in the Department of Chemistry.

Esso Chemicals Limited

£1,000 to institute the Esso Chemical Travelling Scholarship, for award each session to an undergraduate student of the College in the second year of the course for the B.Sc.(Eng.) Degree in Chemical Engineering.

The Gas Council

£500 for research in the School of Environmental Studies in the field of thermal comfort.

Geigy (U.K.) Limited

£100 for an investigation in the Department of Botany and Microbiology of drug action at cell level.

General Electric Company (New York)

£2,400 for the Department of Electronic and Electrical Engineering for research in the area of acoustic holography.

Mr H. Grunwald

£15 per annum to institute, in memory of the late Eva Grunwald, a member of staff in the Department of French from 1946 to 1968, the 'Eva Grunwald Memorial Prize', for award each session to the most promising undergraduate student in the College taking French as a subsidiary subject.

Imperial Chemical Industries Dyestuffs Division

£612 for a postgraduate maintenance grant in the Department of Chemistry.

Imperial Chemical Industries Fibres Limited

£554 for a research studentship in the Department of Chemistry.

Industrial Distributors (Sales) Limited

£750 for the Department of Chemistry for research on diamonds.

International Computers Limited

£2,000 per annum for two years for a research fellowship in traffic studies in the Department of Civil and Municipal Engineering.

Daniel Jones Memorial Fund

A fund of £1,376, subscribed in commemoration of the contribution to the general study of Phonetics of Professor Daniel Jones, founder and member of the Department of Phonetics, 1907–49, Professor of Phonetics, 1921–49, was transferred to the College by the sponsors of the Fund, for the provision of a scholarship or prize in Phonetics or for such other purpose conducive to the study of Phonetics at University College London as the Head of the Department may from time to time determine.

Kellogg International Corporation

£1,000 per annum for five years, in support of an established Chair in the Department of Chemical Engineering—Dr Mark Guter appointed.

Lankro Chemicals Limited

£100 per annum for seven years in support of an established Chair in the Department of Chemical Engineering—Dr Mark Guter appointed.

The Leverhulme Trust Fund

£996 for a study in the School of Environmental Studies of the design process and the method of education for design.

London Transport

£1,500 for research in the Department of Psychology on the problems of training bus drivers.

JOSEPH LUCAS LIMITED

£2,400 and £750 for the Department of Electronic and Electrical Engineering to support a studentship to follow a project activity yet to be decided.

MEDICAL RESEARCH COUNCIL

(1) £1,250 and £469 for the Department of Anatomy and Embryology for a project for developing a quantitative method for detecting the presence of aggressive factors in lymphocytes and serum in experimental immune conditions.

(2) £750 for research in the Department of Anatomy and Embryology on the problems of hard tissue development and structure, physiological resorption, and pathological destruction.

(3) £750 for an investigation in the Department of Anatomy and Embryology of transmitter substances in octopus brain.

(4) £750 for research in the Department of Anatomy and Embryology on electron microscopy of excitatory and inhibitory synapses.

(5) £2,525 for research in the Department of Anthropology on the reproduction and general behaviour of nocturnal prosimians.

(6) £900 for studies in the Department of Anthropology on the red cell and serum proteins of non-human primates.

(7) £34,025 for research in the Department of Biochemistry on the binding of polysomes to endoplasmic reticulum.

(8) £5,565 for investigations in the Department of Biochemistry of the induction and suppression of enzymes of gluconeogenesis by hormones in perfused rat liver.

(9) £4,080 for an investigation in the Department of Biochemistry to assess the role of magnesium and calcium ions in the control of glycolysis and gluconeogenesis.

(10) £110,655 for research in the Department of Biophysics on neurochemistry.

(11) £10,891 and £1,504 for research in the Department of Biophysics on the interrelations between membrane properties and metabolism.

(12) £2,715 for research in the Department of Botany and Microbiology on biogenesis of mitochondria.

(13) £25,813 for investigations in the Department of Chemistry of the structure and activity of biologically active proteins and peptides.

(14) £5,445 for an investigation in the Department of Chemistry of the orientation of sensory nerve fibres *in vitro*.

(15) £3,315 for research in the Department of Chemistry on the purification and comparison of nerve growth factors from several sources.

(16) £1,023 and £303 for an investigation in the Department of Chemistry of the structure and mode of action of phospholipase A from bee venom.

(17) £650 for research in the Department of Chemistry on the structures of molecules active in cholinergic systems.

(18) £3,998 for the Faculty of Medical Sciences for recurrent expenses of neurophysiology and data processing laboratories.

(19) £1,967 10s. for a study in the Department of Pharmacology of the effect of catecholamines on the membrane potential and ionic permeability of hepatic cells.

(20) £169 for a study in the Department of Pharmacology of desensitisation and resensitisation in the anaphylactic reaction of smooth muscle.

(21) £4,800 and £100 for research in the Department of Pharmacology and the Department of Anatomy and Embryology on transmitters in the CNS.

(22) £15,169 and £458 for a study in the Department of Physiology of some problems of foetal and neonatal exchanges in relation to the blood brain barrier.

(23) £11,428 for investigations in the Department of Physiology into the properties and mechanisms of persistent changes in cerebral cortical electrical activity.

(24) £7,038 and £40 for research in the Department of Physiology on the association between 'spontaneous' and evoked unitary activity of neurones in the cerebral cortex of the rat.

(25) £6,560 for research in the Department of Physiology on after-effects of experimental seizures induced in small animals.

(26) £4,935 for research in the Department of Physiology in the spread of activity in the cerebral cortex and the relation of the control of this spread to epilepsy.

(27) £4,400 for an investigation in the Department of Physiology of the relationship between chemical changes and physical energy output during muscular contraction.

(28) £2,271 for the Department of Physiology for physiological studies in olfactory mechanisms in vertebrates: quality discrimination and interaction.

(29) £1,500 for research in the Department of Physiology to determine the calibre of cutaneous nerve fibres influencing fusimotor neurones supplying hind limb muscles of the cat.

(30) £101 for research in the Department of Physiology on the origin of alpha rhythm as tremor of the extra-ocular muscles.

(31) Research training support grants for 154 students, totalling £7,700.

Merck Sharp and Dohme (U.S.A.)

$1,000 for the Department of Anatomy and Embryology in support of the Cerebral Functions Research Group.

Ministry of Defence

(1) £23,752 for research in the Department of Electronic and Electrical Engineering on microwave circuit functions using acoustic surface waves.

(2) £5,673 for a study in the Department of Electronic and Electrical Engineering of the locking problems and element interaction problems of an active antenna array.

(3) £592 and £211 for a study in the Department of Electronic and Electrical Engineering of semi-conductor microwave transit time devices.

(4) £22,500 for the Department of Mechanical Engineering in support of the second year of the postgraduate course for the Corps of Naval Constructors.

(5) £14,000 for the Department of Mechanical Engineering for a critical appraisal of fluid mechanics of the sea.

(6) £1,650 for research in the Department of Mechanical Engineering on the optimum control of three interacting servo systems.

Ministry of Public Building and Works

£300 for research in the School of Environmental Studies on the performance of building materials.

Ministry of Technology

(1) £2,580 for research in the Department of Chemical Engineering on particle mixing in gas fluidised beds.

(2) £1,742 for research in the Department of Chemical Engineering on spontaneous ignition of pure hydrocarbons.

(3) £1,488 for research in the Department of Chemistry on olefin activation and polymerisation.

(4) £2,603 for a study in the Department of Electronic and Electrical Engineering of a periodic ferrite-loaded waveguide of non-standard cross-section.

(5) £2,367 for research in the Department of Electronic and Electrical Engineering on phase shifters for L-band aircraft aerials.

(6) £1,900 for research in the Department of Electronic and Electrical Engineering on acoustic surface wave techniques.

(7) £1,358 for the Department of Electronic and Electrical Engineering for a computer analysis of microstrip components.

(8) £3,332 for a theoretical investigation in the Department of Mathematics of wing-body interaction.

(9) £3,514 for research in the Department of Mechanical Engineering on fatigue behaviour of close-packed hexagonal metals and prediction of fatigue behaviour in non-magnetic metals.

(10) £3,134 for a study in the Department of Mechanical Engineering of the performance of flame traps under given conditions.

(11) £2,284 for a study in the Department of Mechanical Engineering of the fluidic processing of motion data for the control of marine vehicles.

(12) £2,244 for research in the Department of Mechanical Engineering on cumulative fatigue damage.

(13) £2,172 for an investigation in the Department of Mechanical Engineering of the effect of certain foams on flame initiation and propagation.

Ministry of Transport

(1) £1,500 for a pilot study in the Department of Civil and Municipal Engineering of methods of assignment and valuation of time savings.

(2) £1,200 for the Department of Civil and Municipal Engineering for an evaluation of the Stevenage 'Blue Arrow' bus demonstration service.

The Multiple Sclerosis Society

£1,000 for research in the Department of Anatomy and Embryology on the pathogenesis of experimental allergic neuritis and its relationship to clinical neuropathies and multiple sclerosis.

Muscular Dystrophy Associations of America, Inc.

$6,800 for a study in the Department of Biophysics of the role of ionic interactions in metabolic control.

Muscular Dystrophy Group of Great Britain

(1) £6,220 for a study in the Department of Biochemistry of the changes in protein synthetic apparatus of muscle tissue.

(2) £2,173 for the Department of Physiology for an histological and histochemical study of structure and innervation of mammalian extraocular muscles.

National Fund for Research into Crippling Diseases

(1) £3,250 for the Department of Human Genetics and Biometry for an analysis of data on births with congenital malformation, still births, and neonatal deaths.

(2) £2,025 and £145 for research in the Department of Physiology on 'plastic' changes induced in the central nervous system.

National Research Development Corporation

(1) £5,380 for research in the Department of Chemistry on peptides from bee venom.

(2) £900 for the Department of Chemistry for testing intensifying screens for X-ray crystallography.

(3) *See* Whatman Biochemicals Limited.

National Science Foundation, U.S.A.

$500 for a fellowship supply allowance in the Department of Anthropology.

Natural Environment Research Council

(1) £13,816 for the Department of Astronomy for a photogeological evaluation of enhanced lunar orbiter photography and associated experimental work.

(2) £3,114 for the Department of Botany and Microbiology and the Department of Geology for a study of Devonian lower carboniferous spores from southern Britain.

(3) £6,690 for research in the Department of Chemistry on the geological and cosmological significance of radiation-damaged diamond and other minerals.

(4) £11,626 and £341 for a study in the Department of Geology of oceanography and geology of selected areas in the Caribbean.

(5) £4,891 for the Department of Geology for an electron probe analysis of micro-volumes of various substances.

(6) £100 for an investigation in the Department of Geology of the sedimentology of the Permian evaporites from the Vale of Eden.

(7) £3,864 for an investigation in the Department of Zoology and Comparative Anatomy of the origin and early history of the Mammalia.

(8) Research training support grants for 78 students, totalling £3,978.

North Atlantic Treaty Organisation

$6,720 for research in the Department of Chemical Engineering on hydrodynamics of fluidised particles with reference to chemical reactors—an X-ray study of bubble population.

The Nuffield Foundation

(1) £240 for the Department of Anthropology for the study of economic cycles and primitive exchange systems.

(2) £26,300 for research in the Department of Biochemistry in the field of cellular enzymology.

(3) £508 towards the work of the Centre for Urban Studies.

Office for Scientific and Technical Information

£5,900 for a study in the Department of Chemistry of preliminary communications in chemistry.

Miss Eileen O'Rourke

A bequest by the late Miss Eileen O'Rourke, student in the Department of English Language and Literature, 1908–12, of the letters written to her by the late Professor William Paton Ker, formerly Quain Professor of English Language and Literature.

THE POPULATION COUNCIL (U.S.A.)

$21,300 for research in the Department of Human Genetics and Biometry in the statistics of central nervous system malformation and reproductive wastage.

POST OFFICE CONTRACT DEPARTMENT

(1) £24,000 for the Department of Electronic and Electrical Engineering for a theoretical and experimental study of rectangular dielectric strip waveguides.

(2) £12,000 for the Department of Electronic and Electrical Engineering for a further investigation into circular waveguide components.

(3) £328 and £266 for the Department of Electronic and Electrical Engineering for mathematical studies of optical wave propagation in glass fibre tapers.

ROCHE PRODUCTS LIMITED

(1) £3,000 for research in the Department of Chemistry on vitamin B6-dependent enzymes.

(2) £1,125 for research in the Department of Pharmacology on the action of psychotropic drugs.

THE ROYAL SOCIETY

(1) £4,512 for the Department of Anthropology for a study of structure of haemoglobins in non-human primates.

(2) £2,500 for research in the Department of Botany and Microbiology on the correlation of cytochemistry and ultrastructure of reproductive cells.

(3) £52,893 for a Royal Society Research Professorship, assistance and expenses in the Department of Chemistry.

(4) £1,000 for research in the Department of Chemistry on the synthesis and properties of non-benzenoid aromatic systems.

(5) £55,118 for a Royal Society Research Professorship, assistance and expenses in the Department of Physiology.

R. J. SAINSBURY CHARITABLE FUND

£2,000 for the Slade School of Fine Art for the benefit of young sculptors.

SALTERS' COMPANY

£3,200 for a research fellowship in the Department of Biochemistry.

SCHOOLS COUNCIL

£15,700 for research in the Department of General Linguistics on linguistics and English teaching.

SCHOOL OF ORIENTAL AND AFRICAN STUDIES

£384 for the Computer Centre for the listing of sound features in Sir Ralph Turner's Comparative Dictionary of the Indo-Aryan Languages.

SCIENCE RESEARCH COUNCIL

(1) £30,653 for research in the Department of Anatomy and Embryology on the memory system of octopus.

(2) £12,856 for research in the Department of Anatomy and Embryology on the organisation of the visual cortical areas in the rhesus monkey.

(3) £3,164 for research in the Department of Astronomy on molecular astrophysics.

(4) £736 for equipment in the Department of Astronomy for visual observers of satellites.

(5) £315 for a study in the Department of Astronomy of sharp interstellar lines and diffuse features.

(6) £313 for the Department of Astronomy towards the cost of representation at NASA Lunar Sample Conference.

(7) £18,330 for research in the Department of Biochemistry on the role of cyclic AMP in the central nervous system.

(8) £15,270 for research in the Department of Biochemistry on the mechanism of enzyme action as approached by determination of spectra of intermediates.

(9) £8,935 for an investigation in the Department of Biochemistry on mammalian RNA polymerase and the control of gene transcription.

(10) £7,059 for research in the Department of Biochemistry on the modification of bacterial enzymes.

(11) £4,570 for a study in the Department of Biochemistry of the enzymology and function of the nuclei of brain cells.

(12) £2,433 for a study in the Department of Biochemistry of the metabolic significance of carbohydrates in crustacea.

(13) £2,024 for research in the Department of Biochemistry on protein synthesis in mitochondria.

(14) £4,317 for a study in the Department of Botany and Microbiology of antimetabolite effects of hypoglycaemic and structurally related compounds.

(15) £30 for research in the Department of Botany and Microbiology on non-protein amino-acids analogue behaviour and control of biosynthesis.

(16) £200,000 for an investigation in the Department of Chemical Engineering on enzyme technology.

(17) £10,144 for research in the Department of Chemical Engineering on the determination of the turbulence parameters throughout agitated liquid-filled vessels.

(18) £5,257 for research in the Department of Chemical Engineering on crystalliser design and scale-up.

(19) £4,846 for research in the Department of Chemical Engineering on fundamental fluidisation.

(20) £52,708 for researches in the Department of Chemistry in organometallic chemistry.

(21) £25,889 for research in the Department of Chemistry on Laser Raman spectroscopy.

(22) £22,100, £4,893 and £1,409 for research in the Department of Chemistry on microwave spectroscopy.

(23) £18,994 for the Department of Chemistry for mechanistic studies on organometallic reactions.

(24) £10,391 for research in the Department of Chemistry on electron beam scanning of metal surfaces.

(25) £8,036 for research in the Department of Chemistry on the synthesis of large ring conjugated systems.

(26) £7,327 for a study in the Department of Chemistry of the reactivity of co-ordinated organic groups.

(27) £6,154 for research in the Department of Chemistry on the structure of carbonyls.

(28) £5,840 for research in the Department of Chemistry on the synthesis of odd-membered medium-sized rings.

(29) £4,030 for a study in the Department of Chemistry of homolytic organometallic reactions.

(30) £3,927 for research in the Department of Chemistry on the reactions of metal complexes of mono- and sesquiterpenes.

(31) £3,765 for an investigation in the Department of Chemistry of the dipole velocity method for absolute configurations.

(32) £3,721 for research in the Department of Chemistry on high resolution molecular spectroscopy.

(33) £3,390 for an investigation in the Department of Chemistry on the theory of restricted rotation in molecular crystals.

(34) £3,170 for a study in the Department of Chemistry of the mode of action of nerve growth factors.

(35) £1,924 for a study in the Department of Chemistry of centrifugal distortion and force fields for simple asymmetric rotor molecules.

(36) £1,924 for a study in the Department of Chemistry of chelate metal-olefin complexes and their reactions.

(37) £1,924 for research in the Department of Chemistry on high resolution molecular electron spectroscopy.

(38) £1,300 for research in the Department of Chemistry on electronic spectra of benzene.

(39) £442 for research in the Department of Chemistry with Foner vibrating sample magnetometer.

(40) £15,470 for the Department of Civil and Municipal Engineering for an analysis of road accidents and vehicle collisions.

(41) £8,590 for research in the Department of Civil and Municipal Engineering on cationic polyelectrolytes in water and waste-water treatment.

(42) £2,500 for a study in the Department of Civil and Municipal Engineering of particle packing related to the stress strain behaviour of granular soils.

(43) £2,030 for the Department of Civil and Municipal Engineering for a preliminary study of extreme random loads on structures.

(44) £240 for the Department of Civil and Municipal Engineering for statistical measurements of anistropy in granular soils.

(45) £10,787 for research in the Department of Electronic and Electrical Engineering on a new technique for dielectric constant measurement using an open resonator.

(46) £8,893 for an investigation in the Department of Electronic and Electrical Engineering of harmonic locking of IMPATT diode oscillators.

(47) £7,492 for an investigation in the Department of Electronic and Electrical Engineering of pulse modulation and frequency switching of IMPATT oscillators.

(48) £4,272 for an investigation in the Department of Electronic and Electrical Engineering of acoustic surface wave signalling processing.

(49) £4,211 for a study in the Department of Electronic and Electrical Engineering of the effect of scintillation on microwave radio transmission at 36 GH_z.

(50) £3,220 for an investigation in the Department of Electronic and Electrical Engineering of microwave acoustics.

(51) £14,044 for research in the School of Environmental Studies on visual performance in illumination of different spectral quality.

(52) £10,436 for the School of Environmental Studies for the subjective analysis of room acoustics.

(53) £9,496 for a study in the School of Environmental Studies of thermal comfort in air-conditioned deep office buildings.

(54) £3,382 for a pilot study in the School of Environmental Studies on the probability of obsolescence.

(55) £241 for research in the School of Environmental Studies on environmental design.

(56) £200 for an investigation in the School of Environmental Studies of subjective effects of artificial reverberation in auditoria.

(57) £1,500 for research in the Department of Geology on oceanography and geology of selected areas in the Caribbean.

(58) £7,508 for a study in the Department of Human Genetics and Biometry of the role of sex chromosomes in embryonic growth.

(59) £7,305 for research in the Department of Human Genetics and Biometry on the extension of the mathematical theory of natural selection.

(60) £5,532 for research in the Department of Mechanical Engineering on the influence of specimen thickness on random load fatigue crack propagation rates.

(61) £36,651 and £1,000 for an investigation in the Department of Phonetics on the first level of speech perception.

(62) £4,681 for an investigation in the Department of Photogrammetry and Surveying of image characteristics in air photography.

(63) £48,512 and £4,000 for research in the Department of Physics on atmospheric structure.

(64) £21,256 for the development in the Department of Physics of an image photoncounting detector system for optical astronomy.

(65) £16,529 for a study in the Department of Physics of atomic data required for astrophysics research.

(66) £14,772 for the Department of Physics, under an agreement with the Rutherford High Energy Laboratory, for a research programme entitled 'a search for the intermediate boson at CERN ISR'.

(67) £10,910 for an investigation in the Department of Physics of inelastic collision of positrons with molecules.

(68) £9,000 for the Department of Physics for infra-red astronomical observations in the Southern Hemisphere.

(69) £8,070 and £535 for the Department of Physics for experimental studies with rare gas metastable atoms.

(70) £8,000 for the Department of Physics for the Gargamelle Film Analysis Unit.

(71) £6,542 for research in the Department of Physics on the development of infra-red detectors.

(72) £6,075, £4,050 and £2,267 for the Department of Physics for a theoretical study of elementary particle interactions.

(73) £1,849 for research in the Department of Physics with the Emulsion Group.

(74) £1,089 for the Department of Physics for travelling and subsistence expenses in connection with a visit to the Infra-Red Observatory, University of Minnesota.

(75) £5,500 for research in the Department of Statistics on improved efficiency of least squares methods in some crystallographic problems.

(76) £516 for a study in the Department of Statistics of incomplete observations in multiple regression.

(77) Research training support grants for 607 students, totalling £30,957.

Smith Kline and French Foundation

£1,250 for research in the Department of Pharmacology into the effects of amphetamine, amphetamine-barbiturate mixtures and ACTH on behavioural responses to reward and omission of reward.

Snam Frogetti S.p.A. (Italy)

£7,500 for a study in the Department of Chemical Engineering of the properties and possible applications of enzymes incorporated in fibres.

Social Science Research Council

(1) £11,950 for a study in the School of Environmental Studies of adaptation to distracting stimuli within the urban environment.

(2) £27,115 for research in the Slade School of Fine Art on the organisation and use of film and other audio-visual material for historical studies.

(3) £13,165 for research in the Department of General Linguistics on functions and register in the speech of junior school children.

Standard Telecommunication Laboratories Limited

£1,100 for research in the Department of Electronic and Electrical Engineering on guided acoustic surface waves.

Treatise on Invertebrate Palaeontology (U.S.A.)

$2,820 and $800 to provide assistance in the Department of Geology for the revision of the Treatise.

Unilever Limited

£500 per annum for seven years for the establishment of a Chair in the Department of Chemical Engineering—Dr Mark Guter appointed.

United Kingdom Atomic Energy Authority

(1) £340 for research in the Department of Astronomy on the interpretation of solar and laboratory plasma spectra.

(2) £1,524 for research in the Department of Electronic and Electrical Engineering on the rapid microwave Q-factor measurement.

(3) £3,750 and £2,023 for research in the Department of Geology on the mechanics of fracture propagation in elastic-plastic solids, with particular reference to faults in rock and to earthquake source mechanisms.

(4) £8,850 and £510 for research in the Department of Physics on the detection and energy analysis of neutral atoms.

(5) £300 for a study in the Department of Physics of electron-ion recombination in carbon dioxide.

United States Air Force

$10,000 and $5,000 for the Department of Physics for the determination of air density, temperature, and winds at high altitude.

United States Public Health Service

(1) $9,924 for studies in the Department of Anatomy and Embryology of CNS cells receiving visceral afferents.

(2) $1,000 for a fellowship supply allowance in the Department of Anatomy and Embryology.

(3) $7,000 for the Department of Biochemistry for computer simulation of metabolic control.

(4) Two grants of $1,000 each for fellowship supply allowances in the Department of Biophysics.

(5) Two grants of $1,000 each for fellowship supply allowances in the Department of Human Genetics and Biometry.

(6) $1,000 for a fellowship supply allowance in the Department of Phonetics.

(7) $1,000 for a fellowship supply allowance in the Department of Physiology.

(8) $1,000 for a fellowship supply allowance in the Department of Psychology.

THE WELLCOME FOUNDATION LIMITED

£1,680 for the Department of Chemistry for research collaboration on epidermal growth factor.

THE WELLCOME TRUST

(1) £2,310 for an investigation in the Department of Anatomy and Embryology of synaptic structure by electron microscopy and fluorescence microscopy.

(2) £700 for studies in the Department of Anatomy and Embryology on cell behaviour.

(3) £9,600 towards the cost of the Sub-Department of the History of Medicine in the Department of Anatomy and Embryology.

(4) £2,750 for a research fellowship in the Sub-Department of the History of Medicine in the Department of Anatomy and Embryology for a pilot study of haemoglobinopathics in old bones.

(5) £2,000 for the purchase of books for use in the Sub-Department of the History of Medicine in the Department of Anatomy and Embryology.

(6) £706 5s. for a study in the Sub-Department of the History of Medicine in the Department of Anatomy and Embryology of the evolution of quantitation in nutrition.

(7) £730 for a research training scholarship in the Department of Animal Genetics.

(8) £730 for a research training scholarship in the Department of Biochemistry.

(9) £3,063 for a research fellowship in the Department of Biophysics for a study of the effect of prolonged blockage of nerve impulses.

(10) £2,160 for a research training scholarship in the Department of Biophysics.

(11) £2,190 for a research training scholarship in the Department of Botany and Microbiology.

(12) £200 for a study in the Department of Human Genetics and Biometry of enzymes in relation to embryological differentiation.

(13) £30,000 for the Department of Pharmacology to establish a research unit concerned with theoretical and practical aspects of drug allergy.

(14) £676 for a fellowship in the Department of Physiology.

WHATMAN BIOCHEMICALS LIMITED AND NATIONAL RESEARCH DEVELOPMENT CORPORATION

£20,000 for research in the Department of Chemical Engineering on high specifity polyelectrolytes.

BENEFACTIONS AND DONATIONS TO THE LIBRARY

MRS P. BALDWIN

A gift of 40 volumes, mainly on biochemistry, which had belonged to her late husband, Professor Ernest Baldwin.

EMERITUS PROFESSOR H. HALE BELLOT

In addition to the bequest reported on pages 17 and 124, the Library also received Professor Hale Bellot's notes and references used by him in compiling his centenary history of the College, and in later work on the College and on the University of London, together with notes for his lectures as Commonwealth Fund Professor of American History, 1930–55.

SIR ARTHUR S. MACNALTY

A bequest of 17 volumes relating to Sir Walter Scott.

MR J. K. SHAH

A gift of 80 books and pamphlets on law and international relations.

MR T. B. WHEELER

A gift of a set of his own notes on W. P. Ker's lectures on English literature for the years 1910 to 1912.

APPENDIX XIV

COLLEGE ACCOUNTS 1969–70

The Balance Sheet and the Income and Expenditure Account for the year will be found on pages 142–5.

BALANCE SHEET

LIABILITIES

The Capital Account increased by £367,253, which is mainly attributable to the completion of Max Rayne House, on the Whitcher Place site, for student accommodation. All large capital schemes, apart from the Ramsay Hall extension, are now reflected in the Balance Sheet.

ASSETS

Freehold and Leasehold Land and Buildings increased by £343,904, including the acquisitions shown above, after deducting the value of properties demolished.

TRUST FUNDS

The College holds endowments in the form of 199 separate trust funds with a total value of £1,327,257. The funds yield a total annual income of £96,000.

INCOME AND EXPENDITURE

The expenditure for the year exceeded income by £37,635, after charging £60,000 which was regarded as an allocation from the accumulated surplus. The balance carried forward on the Income and Expenditure Account was £110,859 (£148,494 in 1968–69).

Income exceeded that for 1968–69 by £957,985, of which £607,780 represented increased grants from the Court of the University. Fees increased by £13,220. Grants for research were £259,592 higher than in the previous year. Selective Employment Tax (wholly recovered) increased by £81,494.

Expenditure was £1,024,310 more than in 1968–69. Of this sum £696,795 was spent on academic departments. Maintenance of Premises cost an additional £119,214, including an extra £99,864 for rates following the occupation of new accommodation.

Income and expenditure under the main classifications in 1969–70, as compared with 1968–69 and with the corresponding year of the previous quinquennium, are shown in the following table.

EXPENDITURE	1964–65 £	%	1968–69 £	%	1969–70 £	%
Salaries and Pensions of Teaching Staff..	1,552,161	39·3	2,189,104	35·7	2,391,622	33·4
Departmental Expenses, including Library	894,907	22·6	1,313,474	21·4	1,570,471	21·9
Research Grants ..	664,655	16·9	1,023,031	16·7	1,282,623	17·9
Maintenance of Premises	491,864	12·5	894,309	14·6	1,045,252	14·6
Administration ..	235,547	6·0	361,448	5·9	430,419	6·0
Selective Employment Tax	—	—	186,924	3·0	268,418	3·8
Other	108,514	2·7	164,568	2·7	168,363	2·4
	£3,947,648	100·0	£6,132,858	100·0	£7,157,168	100·0
INCOME						
Endowments ..	63,402	1·6	78,963	1·3	82,951	1·2
Grants	2,889,210	73·4	4,187,979	68·0	4,795,759	67·4
Donations	29,963	0·8	137,646	2·2	153,038	2·1
Fees	252,255	6·4	386,836	6·3	400,056	5·6
Grants for Research	664,655	16·7	1,023,031	16·6	1,282,623	18·0
Research Training Support Grants ..	—	—	45,101	0·7	43,570	0·6
Selective Employment Tax	—	—	186,924	3·0	268,418	3·8
Other	42,144	1·1	115,068	1·9	93,118	1·3
	£3,941,629	100·0	£6,161,548	100·0	£7,119,533	100·0

EXTRA-BUDGETARY ACTIVITIES

The College administers the finances of many research projects supported from outside sources. 423 were being pursued actively at 31 July 1969. Income and expenditure rose from £1,023,031 in 1968–69 to £1,282,623 in 1969–70.

CAPITAL GRANTS

Capital grants made during the year 1969–70 were as follows:	£
Alterations in Foster Court and Flaxman House for the Departments of Geology and Town Planning, etc.: Professional fees	696
Hall of Residence at Whitcher Place, Stage II: Professional fees ..	31,055
Alteration to Refectory: Building work	36,003

Chemistry Building, Stage I: Furniture	16,794
Conversion of Chaucer House and former National Central Library: Professional fees	13,424
Extension to Biological Sciences Building: Furniture	3,550
Alterations for Anatomy and Biological Sciences following move of D.M.S. Watson Library: Furniture	4,820
Conversion of former Genetics space for Departments of Architecture and Statistics: Furniture	505
Alterations for seminar room in Department of Pharmacology: Furniture	136
Alterations to teaching area in Department of Geology: Furniture	312
Partitioning of rooms on first floor of New Engineering Building: Furniture	1,280
Conversion of balance room to office/research area for Department of Chemistry: Furniture	119
Extension to Ramsay Hall of Residence: Furniture	46,288
Purchase of 9 Hertford Place, W1	29,000
Hall of Residence at Whitcher Place, Stage II: Furniture	63,155
Formation of micro-analytical laboratory in Department of Chemistry:	
Building work	2,280
Furniture	317
Formation of Technicians' Common Room in Department of Anatomy and Embryology:	
Building work	1,553
Furniture	449
Conversion of laboratory for Department of Chemistry theoretical work room:	
Building work	674
Furniture	960
Services alteration to take extra students in Department of Botany and Microbiology:	
Building work	612
Furniture	760
Purchase of 9 Hertford Place, W1: Professional fees	1,221
Extension to Ramsay Hall of Residence: Professional fees	44,879
Improvement to staff accommodation at 4 Malet Place for Department of Geology: Building work	1,126
Formation of staff rooms at 26 Gordon Square for Department of Political Economy: Building work	1,145
Provision of dark rooms and laboratory space, etc. for biochemical engineering research: Building work	1,390
Improvement of staff accommodation at 4 Malet Place for Department of Geology: Furniture	308
Formation of staff rooms at 26 Gordon Square for Department of Political Economy: Furniture	640
Provision of new demonstration room in Department of Physiology: Furniture	938
Provision of staff rooms, workshop and studio, etc. for School of Environmental Studies: Building work	2,613
Extension to Ramsay Hall of Residence: Furniture	2,000

Conversion in Slade School for dark room and lithography, etc.:	
Building work	2,437
Furniture	2,480
Provision of new demonstration room in Department of Physiology:	
Building work	1,183
Provision of dark rooms and laboratory space, etc., for biochemical engineering research: Furniture	651
	£317,753

SCHOLARSHIPS AND PRIZES

Expenditure amounted to £45,900. Awards were made as under:

	Undergraduate	*Postgraduate*
	£	£
From Endowments	6,010	6,879
„ Donations	—	26,464
„ General Income	5,084	1,463
	£11,094	£34,806

31–7–69		
£		£
14,394,208	CAPITAL ACCOUNT	14,761,461
23,867	REDEMPTION FUNDS	25,445
94,141	LOANS	69,875
14,512,216		14,856,781
828,832	RESERVES AND AMOUNTS SET ASIDE	953,104
545,361	EARMARKED FUNDS	604,715
597,793	CURRENT LIABILITIES	600,596
16,484,202		17,015,196
1,358,939	TRUST FUNDS	1,327,257

NOTE

Freehold and Leasehold Land and Buildings

(a) Freehold and leasehold land and buildings as stated in the accounts does not include fixtures, furniture and equipment. The cost of these assets is written out of the accounts on purchase or on completion of a Project against the corresponding grants or other monies received which are not therefore included in Capital Account.

(b) Freehold land and buildings are stated at valuation made in 1959 on the basis of the then current land values and building costs; additions since are stated at cost, which is estimated by the College authorities on the basis of the proportion of completed projects applicable to land and buildings.

£17,843,141	£18,342,453

31–7–69		
£		£
14,192,323	FREEHOLD LAND AND BUILDINGS—see note below	14,545,838
444,235	LEASEHOLD LAND AND BUILDINGS	434,624
14,636,558		14,980,462
108,820	CAPITAL AND OTHER WORKS IN PROGRESS *less* capital grants and other capital receipts	81,236
393,554	INVESTMENTS .. .. (*Market Value of Stock Exchange Securities and other Investments at 31 July 1970, £377,772; 31 July 1969 £347,183*)	408,112
495,116	EXPENDITURE RECOVERABLE FROM FUTURE GRANTS	952,126
850,154	CURRENT ASSETS INCLUDING PREPAYMENTS	593,260
16,484,202		17,015,196
1,358,939	TRUST FUNDS	1,327,257
£17,843,141		£18,342,453

EXPENDITURE

1968–69 £		£	£
	Administration		
269,626	Salaries	330,567	
81,717	Advertising, Printing, Stationery, Postage and Telephone	90,731	
10,105	Other Expenses (including Professional Fees)	9,121	
(361,448)			430,419
	Academic Departments		
2,163,125	Salaries of Teaching Staff	2,359,097	
597,212	Departmental Wages: Technical Staff	812,061	
134,017	Secretarial Staff	148,025	
447,803	Departmental and Laboratory Maintenance	434,089	
99,147	Libraries: Salaries 107,792		
63,906	General Expenditure 83,248		
		191,040	
1,023,031	Research Expenditure covered by grants on Research Contracts	1,282,623	
14,709	Other expenditure	12,810	
(4,542,950)			5,239,745
	Maintenance of Premises		
193,682	Rates	293,546	
11,097	Insurance	13,358	
	Rent and other payments for use of buildings:		
10,636	Halls of Residence 10,906		
82,596	Other Buildings 47,767		
		58,673	
141,869	Heat, Light, Water and Power	177,182	
337,088	Repairs and Maintenance of Buildings including amounts set aside for long-term maintenance	349,320	
81,973	Wages of Porters and Attendants	84,340	
9,030	Other Expenses	10,766	
(867,971)			987,185
	General Educational		
822	Examinations	1,496	
39,537	Scholarships and Prizes	45,900	
1,212	Public Lectures	1,032	
4,500	Staff Attendance at Conferences	4,500	
(46,071)			52,928
	Student Facilities and Amenities		
56,765	Grant to Students Union (including Collegiate Theatre)	58,073	
7,551	Salaries: Wardens of Halls of Residence	10,574	
7,721	Student Health Service	8,286	
4,835	Students' Purposes Fund	4,053	
240	Crabb Robinson Fund	247	
342	Ealing Hall Fund	265	
5,131	Central Admissions Scheme	5,188	
265	Miscellaneous	299	
4,844	Careers Office	5,743	
(87,694)			92,728
	Miscellaneous		
25,979	Staff Pensions	32,525	
3,104	Grants from Benevolent Funds	3,228	
2,426	Interest on Overdrafts, etc.	4,550	
12,965	Sundries	8,362	
	Deficits on Income and Expenditure Account for Halls of Residence, Refectories, etc.		
2,800	Refectory: College Subvention	2,567	
5,508	Deficit as at 1 August 1968 written off	—	
186,924	Selective Employment Tax	268,418	
(239,706)			319,650
	Capital Expenditure Met from Income		
2,000	Holmbury House	2,000	
2,000	R.T.B. House	2,000	
(4,000)			4,000
	Allocation to (from) Reserves at 31 July 1970		
—	Equipment Reserve		40,000
20,000	College Fund		20,000
	Revenue Grants:		
7,913	Departmental Maintenance	(7,757)	
5,602	Library	(1,925)	
19,880	Repairs and Maintenance of Buildings	19,953	
20,198	Petty Works	18,192	
(53,593)			28,463
12,805	Former Research Councils (earmarked funds)		8,448
£6,236,238			£7,223,566
28,690	*Excess of Income over Expenditure for the year*		—
£6,264,928			£7,223,566
	Excess of Expenditure over Income for the year after allocations (net) to Reserves of £30,513		37,635
148,494	Balance, 31 July 1970, carried to Balance Sheet		110,859
£148,494			£148,494

INCOME

1968–69 £		£	£
	ENDOWMENTS		
78,963	Income of Trust Funds appropriated for purposes specified by Trust against expenditure included opposite		82,951
	DONATIONS AND SUBSCRIPTIONS: Appropriated for:		
16,786	Libraries	2,640	
24,429	Scholarships and Bursaries	26,464	
60,096	Salaries and Superannuation	80,936	
36,335	Departmental and Laboratory Maintenance	42,998	
(137,646)			153,038
	GRANTS FROM UNIVERSITY COURT		
(3,711,000)	General		4,094,000
	Earmarked:		
130,029	Academic Salary Revision 1969 Scheme	227,200	
102,105	Former Research Councils	102,105	
193,573	Rates	293,546	
995	Hayter Committee	1,110	
45,000	Supplementary Maintenance Grant	75,000	
5,277	Parry	2,798	
(476,979)			701,759
45,101	RESEARCH COUNCIL TRAINING SUPPORT GRANTS		43,570
386,836	FEES		400,056
1,023,031	GRANTS FOR RESEARCH, including research contracts		1,282,623
26,829	CONTRIBUTIONS FOR SERVICES RENDERED		25,001
	SURPLUS FROM INCOME AND EXPENDITURE ACCOUNTS FOR COLLEGE PROPERTIES, HALLS OF RESIDENCE, REFECTORIES, ETC.		
18,467	College properties		17,772
69,772	OTHER ITEMS		50,345
186,924	SELECTIVE EMPLOYMENT TAX		268,418
	ALLOCATIONS FROM RESERVE AT 1 AUGUST 1969		
	Revenue Grants:		
53,910	Departmental Maintenance	7,913	
–940	Library General Expenditure	5,602	
17,700	Repairs and Maintenance of Buildings	19,880	
16,040	Petty Works	20,198	
			53,593
16,670	Former Research Councils Grant		12,805
(6,264,928)			7,185,931

—	EXCESS OF EXPENDITURE OVER INCOME FOR THE YEAR		37,635
£6,264,928			£7,223,566
119,804	Balance as at 1 August 1969		148,494
28,690	*Excess of Income over Expenditure for the year 1968–69, after allocations (net) from Reserves of £16,982*		—
£148,494			£148,494

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